TAPR Digital Signal Processing Special Interest Group Archive, January 1996 through December 1997

January 1996 through December 1997

TAPR's forum for digital signal processing in amateur radio and digital communications, including DSP processors and development boards, algorithms, modems, software, hardware, and projects such as the TAPR/AMSAT DSP-93.

This volume contains 22 original monthly files and 967 messages, arranged chronologically. The PDF is a readable access copy: MIME transfer encodings are decoded, HTML bodies are converted to plain text, and non-text attachments are represented by descriptive notes. The raw source text is supplied separately with the Internet Archive item.

Month	Messages	Original source file
1996-01	56	dsp.9601
1996-02	94	dsp.9602
1996-03	83	dsp.9603
1996-04	74	dsp.9604
1996-06	24	dsp.9606
1996-07	14	dsp.9607
1996-08	11	dsp.9608
1996-09	12	dsp.9609
1996-10	59	dsp.9610
1996-11	55	dsp.9611
1996-12	57	dsp.9612
1997-02	80	dsp.9702
1997-03	34	dsp.9703
1997-04	26	dsp.9704
1997-05	56	dsp.9705
1997-06	36	dsp.9706
1997-07	27	dsp.9707
1997-08	68	dsp.9708
1997-09	39	dsp.9709
1997-10	13	dsp.9710
1997-11	30	dsp.9711
1997-12	19	dsp.9712

January 1996

Original source file: dsp.9601
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9601

1. Re: [DSP-93:1865] Re: yes=>Re: TNC/93 on 9600 Packet

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Mon, 01 Jan 1996 17:54:09 +0000
To: dsp-93@tapr.org
Message-ID: <199601011812.NAA09033@camel.campbell.edu>
Rendered body type: text/plain

Hi Bob,

Hmm..been a while so things are foggy.

Are you saying that if you use your PK900 in exactly the same simplex 9600
operation configuration with the DSP-93 (only difference is TNC you're
using?) that one works and the other doesn't??

At 03:16 12/30/95 -0600, you wrote:
>Hi, one last question and thanks for the responses:
>
>Before I do surgery, I will say that in addition to the solid DCD light I was
>getting good throughput by using my PK900 as the TNC - does this make a
>difference?
>
>I may go back to that...
>
>Thanks.
>
>----------

Mark L. Hammond   [KC4EBR]

2. Board/EPROM Rev. #'s

From: "Stacey E. Mills, M.D." <sem2r@galen.med.virginia.edu>
Date: Tue, 02 Jan 1996 09:42:31 -0500
To: dsp-93@tapr.org
Message-ID: <199601021441.JAA73134@avery.med.Virginia.EDU>
Rendered body type: text/plain

Hi group,
   I just began assembling a DSP-93, which I received from TAPR last week.
After quite a bit of work (finished board #1, and half of #2), I noticed
that my circuit boards are Rev #1, dated 9/94, whereas the assembly drawings
are from a later, 1995 version. There are minor layout differences and so
far I've encountered one part, a resistor (R236) which doesn't exist on my
earlier board #2. Are there changes or modifications to these earlier
circuit boards that I need to make?? (I assume that this is a "returned"
kit that someone had been holding for a while.) My EPROM's are labelled
1995 ver 2.17. Are these current??

  Thanks for your help.

Stacey E. Mills
E-Mail: sem2r@galen.med.virginia.edu
Office Phone: 804-982-4406
Office Fax: 804-924-8767

3. Re: [DSP-93:1867] Board/EPROM Rev. #'s

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Tue, 2 Jan 1996 10:11:12 -0600
To: dsp-93@tapr.org
Message-ID: <v02130500ad0f07cd36b9@[204.251.33.75]>
Rendered body type: text/plain

>Hi group,
>   I just began assembling a DSP-93, which I received from TAPR last week.
>After quite a bit of work (finished board #1, and half of #2), I noticed
>that my circuit boards are Rev #1, dated 9/94, whereas the assembly drawings
>are from a later, 1995 version. There are minor layout differences and so
>far I've encountered one part, a resistor (R236) which doesn't exist on my
>earlier board #2. Are there changes or modifications to these earlier
>circuit boards that I need to make?? (I assume that this is a "returned"

>kit that someone had been holding for a while.) My EPROM's are labelled
>1995 ver 2.17. Are these current??
>
> Thanks for your help.
>--------
>Stacey E. Mills
>E-Mail: sem2r@galen.med.virginia.edu
>Office Phone: 804-982-4406
>Office Fax: 804-924-8767

The boards should be labeled on the silkscreen on the edge of the board
with the long interboard connectors:

© 1994 TUCSON AMATEUR PACKET RADIO CORP. Prod Rev 2 DSP 93 Board One 3/1/95

and

© 1994 TUCSON AMATEUR PACKET RADIO CORP. Prod Rev 2 DSP 93 Board Two 3/1/95

R236 was added after the initial production release. EPROM 2.17 is the
current release.

I'd leave a voice mail message for Dorothy at the TAPR office and hope she
checks the voice mail as the office is "officially" closed until Jan 15 or
so.

Ron W5RKN

also:
rparsons@bga.com

4. RE: [DSP-93:1866] Re: yes=>Re: TNC/93 on 9600 Packet

From: "Bob Smith" <bsmith@msn.com>
Date: Tue, 2 Jan 96 16:24:03 UT
To: dsp-93@tapr.org
Message-ID: <UPMAIL01.19960102162416055l@msn.com>
Rendered body type: text/plain

Thanks for respondig Mark and please disregard the message - That was a very
late delvered message due to a MSN mix up.

From: dsp-93@tapr.org on behalf of Mark L. Hammond
Sent: Monday, January 01, 1996 1:01 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1866] Re: yes=>Re: TNC/93 on 9600 Packet

Hi Bob,

Hmm..been a while so things are foggy.

Are you saying that if you use your PK900 in exactly the same simplex 9600
operation configuration with the DSP-93 (only difference is TNC you're
using?) that one works and the other doesn't??

At 03:16 12/30/95 -0600, you wrote:
>Hi, one last question and thanks for the responses:
>
>Before I do surgery, I will say that in addition to the solid DCD light I was

>getting good throughput by using my PK900 as the TNC - does this make a
>difference?
>
>I may go back to that...
>
>Thanks.
>
>----------

Mark L. Hammond   [KC4EBR]

```
----
Bob Smith  N3FTU
n3ftu@amsat.org
Atlanta, GA  USA
```

5. PK232 - help!

```
From: Arthur Mercer <amercer@calvin.stemnet.nf.ca>
Date: Wed, 3 Jan 1996 20:48:19 -0330
To: dsp-93@tapr.org
Message-ID: <199601040018.UAA10356@calvin.stemnet.nf.ca>
Rendered body type: text/plain
```

Hi All

I'm struggling with the jumpers on the modem disconnect.

I've installed the modem disconnnect board for the PK232, not having
a connector I soldered the 5 wires on the male 20 pin header
(E1 #1,5,15,17,19) and removered all 6 jumpers as per instructions.

I was receiving satellites before with the PK232 throught the external
 modem jack on the rear, but no transmit, now I can't recieve or
transmit, and think it may be the jumpering on the modem disconnect
of the DSP-93.

Does ANYONE know the right configuration of jumpers to get the PK232
and DSP-93 working?

I have:

- EPROM ver 2.15
- pins 7 & 16 grounded to pin 15 / per instructions initialize backwards
- pins 14 & 18 high to pin 3

What else is required to get it to work?

Anyone who has the PK232 and DSP-93 working, please pass along the info.

My radios are ICOM and Kenwood, both go to ground to transmit.

Thanks
Bill Fry
VO1OR

6. Re: [DSP-93:1870] PK232 - help!

```
From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Wed, 3 Jan 1996 19:42:54 -0600
To: dsp-93@tapr.org
Message-ID: <v02130501ad10e0613b08@[204.181.160.7]>
Rendered body type: text/plain
```

>Bill Fry
>VO1OR

>
>I'm struggling with the jumpers on the modem disconnect.
>
>I've installed the modem disconnnect board for the PK232, not having
>a connector I soldered the 5 wires on the male 20 pin header
>(E1 #1,5,15,17,19) and removered all 6 jumpers as per instructions.

What instructions to remove all 6 jumpers?

You will need jumpers 5-6-10-9, 11-12, 13-14.

>I have:
>
>- EPROM ver 2.15
>- pins 7 & 16 grounded to pin 15 / per instructions initialize backwards
>- pins 14 & 18 high to pin 3

You should upgrade to the current EPROM 2.17. It's on the ftp site and
available from TAPR.

Ron W5RKN

also:
rparsons@bga.com

7. Re: [DSP-93:1870] PK232 - help!

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Thu, 04 Jan 1996 03:23:40 +0000
To: dsp-93@tapr.org
Message-ID: <199601040342.WAA28877@camel.campbell.edu>
Rendered body type: text/plain

Hi Bill,

I had TAPR-PSK and TAPR-9600 both connected to my PK232 (no MBX--kinda old) thru the TAPR modem disconnect header. I had been using them both for a while. When I got the DSP-93, it was "plug and play"...I just unplugged the connector to the old modems and plugged in the DSP-93. Worked dandy.

Here's an idea...how about checking out the pairs of pins (1+2, 3+4, etc) all the way down the PK232 modem disconnect pins, without the cable/DSP-93 connected. Report back to me here on the list, and I'll see what gives.

My feeling is that there might be a trace under the PK232 that is shorting one or more pairs of disconnect pins...I forget if I had to cut traces...it was over 5 years ago when I made the mods...

On the pk232 disconnect pins, it should be like this BEFORE you connect the DSP-93 cable:

1-2 open (closed actually works, too...but probably should be open)
3-4 open
5-6 shorted
7-8 open
9-10 shorted, also shorted to pins 5 and 6
11-12 shorted--can't verify--should be shorted
13-14 shorted--can't verify---should be shorted
15-16 open
17-18 open
19-20 open

I can't verify 11-12 and 13-14 because I loaned my pk232 out a couple weeks ago...arghh.

Now, I assume you are running a cable from the pk232 to DB-25 connector on the back of the DSP-93? In this case, make sure the following is connected:

pk232 modem discon. header	DB-25 on DSP-93
1	1
5,6,9,10	3
15	8
17	9
19	10

Hmm...I forget the EPROM story...but the pins your refer to are not the DB-25 pins. For the Kenwood rigs, pins 4, 20, 21, 22 on the DB-25 need to be pulled to +5V. Now if you have the "reversed logic eproms" as I think the 2.15 version is, you will need to reverse the logic of the pins from what you want the result to be. In other words, connect them to ground rather than 5V. Clear as mud, right? Here is a clip that may apply, depending on the build and boards you are working from:

==========
TNC pin 3 in not connected on the PCB (or at least it shouldn't be) until you dot the mod to it as stated in the Build Update 2 Feb:

"
* Pin 3 on DSP-93 TNC not at 5V
A pullup resistor was left off the DSP-93 Board 2 to pullup pin 3 on the TNC connector (between U213 and U214). A solution is to solder a resistor (about 10k ohms) on the bottom of Board 2 between pin 3 of the TNC connector and U113 pin 20 (+5V). Be careful not to short either lead to any uninsulated point on the bottom of the board
"
==========

Let me know how you progress..and make sure you sort through the pin numbers

with regards to the TNC header pins and the DB-25 connector.

At 18:21 1/3/96 -0600, you wrote:
>Hi All
>
>I'm struggling with the jumpers on the modem disconnect.
>
>I've installed the modem disconnnect board for the PK232, not having
>a connector I soldered the 5 wires on the male 20 pin header
>(E1 #1,5,15,17,19) and removered all 6 jumpers as per instructions.
>
>I was receiving satellites before with the PK232 throught the external
> modem jack on the rear, but no transmit, now I can't recieve or
>transmit, and think it may be the jumpering on the modem disconnect
>of the DSP-93.
>
>Does ANYONE know the right configuration of jumpers to get the PK232
>and DSP-93 working?
>
>I have:
>
>- EPROM ver 2.15
>- pins 7 & 16 grounded to pin 15 / per instructions initialize backwards
>- pins 14 & 18 high to pin 3
>
>What else is required to get it to work?
>
>Anyone who has the PK232 and DSP-93 working, please pass along the info.
>
>My radios are ICOM and Kenwood, both go to ground to transmit.
>
>Thanks
>Bill Fry
>VO1OR
>
>
>

Mark L. Hammond   [KC4EBR]

8. paccomm

From: matem@unipv.it (dip. Matematica- Rossella)
Date: Fri, 5 Jan 1996 14:39:29 +0100
To: dsp-93@tapr.org
Message-ID: <9601051339.AA03020@unipv.it>
Rendered body type: text/plain

Hi gang,
A couple of question about the Paccomm-tnc for dsp93.
If i load any program from eprom all go ok.If i load the same .obj from d93we
the ptt is always in tx....
The sistem work with two port separately.
Another question is :when i turn off the power all the data(MYCALL ecc) go down.
The jump for battery is on.
MY is a first release dsp93,working well with separate tnc.
Any suggestion??
73 from dolomite mountains   Franco   in3dyg

9. tnc for dsp-93

From: wb5aaa@wb5aaa.usl.edu (Jim Barron)
Date: Fri, 05 Jan 96 07:53:59 cst
To: dsp-93@tapr.org
Message-ID: <6249@wb5aaa.usl.edu>
Rendered body type: text/plain

"COME ON" Gwynn how about some information on KISS

Gwynn , you do know this tnc is about worthless without KISS,
OR DO U ???????

I called PacComm yesterday and was told they don't have kiss working yet

I sure wish tey had told me there was no kiss when I placed the order..
WELL I GUESS IF I HAD BEEEN TOLD THERE WAS NO KISS THERE WOULD HAVE BEEN
NO ORDER ......

Beta testers we are, I guess.......

Its hard to understand just what is taking so long ,
guess its

K keep
I it
S slow
S stupid

73

10. PacComm tnc/dsp-93

From: wb5aaa@wb5aaa.usl.edu (Jim Barron)
Date: Fri, 05 Jan 96 12:14:34 cst
To: dsp-93@tapr.org
Message-ID: <6254@wb5aaa.usl.edu>
Rendered body type: text/plain

maybe If we all returned our TNC's to Gwynn
he would wake-up

How is TAPR doing with their TNC project for the DSP-93 ????

11. Re: [DSP-93:1873] paccomm

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Fri, 05 Jan 1996 18:52:29 +0000
To: dsp-93@tapr.org
Message-ID: <199601051911.OAA23294@camel.campbell.edu>
Rendered body type: text/plain

Hi Franco,

What version of the DSP-93 EPROM are you using? 2.15 or 2.17?? The version
you are using MAY explain your problem, but I'm not sure.

I have ver 2.17 DSP-93 EPROMS in my box. The jumpers on the PacComm TNC
work just dandy on both my ICOM IC-706 and Kenwood TS-790A (they both ground
to transmit).

I also saw the loss of parameters on the first board that PacComm sent me.
In fact, that unit was reluctant to start at all. They gladly traded me TNC
boards. The second TNC board that I got starts okay, but I still see the
loss of battery backed parameters when I shut the unit off for more than
just a couple of minutes.

I have a beta test DSP-93 unit, by the way. Your first run DSP-93 is VERY
similar to mine (as are all the runs, actually).

I wonder if anybody else sees the loss of parameters after shutting the box
down for a while?

At 07:57 1/5/96 -0600, you wrote:
>Hi gang,
>A couple of question about the Paccomm-tnc for dsp93.
>If i load any program from eprom all go ok.If i load the same .obj from d93we
>the ptt is always in tx....
>The sistem work with two port separately.
>Another question is :when i turn off the power all the data(MYCALL ecc) go
down.
>The jump for battery is on.
>MY is a first release dsp93,working well with separate tnc.
>Any suggestion??
>73 from dolomite mountains   Franco   in3dyg
>
>
>

Mark L. Hammond   [KC4EBR]

12. DSP-93 eproms--Run ver 2.17!!!

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Fri, 05 Jan 1996 19:02:35 +0000
To: dsp-93@tapr.org
Message-ID: <199601051921.OAA23656@camel.campbell.edu>

Rendered body type: text/plain

Hi all,

In the past couple of weeks I have seen a few people that appear to be
running version 2.15 EPROMs in their DSP-93.

PLEASE UPGRADE YOUR EPROMS TO VERSION 2.17 AS SOON AS IT BECOMES FEASIBLE!!!
The ver. 2.15 had an annoying trait of initializing the PTT lines backwards
(as least some of them).

When you ask the group for help on this topic, we sort of forget the story
and the details because we assume that everybody is running ver 2.17. The
two image files for burning your own 2.17 eproms are available at
ftp.tapr.org by anonymous login:

/tapr/dsp93/eproms/u102_217.obj   950701 00:00   32767 bytes
/tapr/dsp93/eproms/u103_217.obj   950701 00:00   32767 bytes

I also am PRETTY sure that you can order them from TAPR for a reasonable
price (I don't know...maybe $10 or $15, maybe more, maybe less??)

Make it your New Year's Resolution to run 2.17 EPROMs!!!

Mark L. Hammond   [KC4EBR]

13. Re: [DSP-93:1875] PacComm tnc/dsp-93

From: Greg Jones <wd5ivd@tapr.org>
Date: Fri, 5 Jan 1996 18:38:41 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199601060038.SAA16768@sys1.tapr.org>
Rendered body type: text/plain

> How is TAPR doing with their TNC project for the DSP-93 ????
>

Funny you should ask this ...

Hi DSP-93 owners,users, and lurkers.

Thought I would give an update on the TNC-95 project.

Basically, several things have happened in the last few weeks. John Koster,
W9DDD, the designer wrapped up the big project he was doing at work and had
most of the Holidays to spend working out the PAL and hardware issues. The
alpha-1 board now operates to some extent and John is debugging it further.

With luck in the next week or so John will be able to conclude testing on
the alpha-1 board and build the other three alpha boards for delivery to the
firmware/software developers.

Our current frame of thought is to fully test firmware on the alpha boards
and then do a beta run.

Now the question for the group. We would normally do a limited run of
beta-boards for just the beta-group -- which is about 10 people. Beta
testing is where the documentation is developed, checked and user testing is
done to ensure that the firmware is going to work across the platforms. The
current TNC-95 beta group represents a mixture of DSP-93 developers,
original beta-testers, and some there for other apps besides DSP-93.

The alpha boards as completed now have one blue wire total (thus one error -
dealing with a PAL line for controlling the NOVRAM - I think I got that
right John?). Hopefully after testing the 8530s this weekend (the last part
of the board to be tested fully on the alpha-1) that will be the only error
in the design. Keep in mind that this is using a test load from Howie
Goldstein, N2WX. Various ports haven't been made yet and that might uncover
something in the design that would need to be changed. Smaller issues will
be changed in the beta, like voltage regulator facing and the addition of
some test circuits for a later networking version and similar cosmetic
items.

The question I am asking you and will be asking the DSP-93 development group

and the beta-group is "If we are hopefully certain that there will be no
major problems (which can not be guaranteed -- blues wires happen) should we
do a run of say 50 beta boards...have the beta-testers do their thing and
then make the other 40 kits available for sales to the DSP-93 owners ?"

Why I ask this is 1) to help reduce the per-board cost of the beta-run and
2) to help provide TNC-95 to DSP-93 owners quicker than having to do another
board crank. (Quick is all relative :-)

This is something that is being thought about and hasn't been done before
within TAPR. So -- not sure what we will do...things change over time.
Please let me know what you think and if you would be interested in having a
beta-board with possibly some mods required to get it working (in case
something does happen). I know many want to have the most recent and
wouldn't except possible changes from beta to a production, but then again I
know some of you almost like to add things to the boards as changes are
made.

In addition, I have a QuickTime movie of the aplha board made and will try
to make that available on the DSP-93 page when I return to Austin end of
next week. This would allow you to see what it looks like.

Cheers - Greg, WD5IVD
Pres. TAPR

14. Re: [DSP-93:1878] Re: PacComm tnc/dsp-93

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Fri, 5 Jan 1996 19:55:39 -0600
To: dsp-93@tapr.org
Message-ID: <v02130500ad138320ae07@[204.251.33.86]>
Rendered body type: text/plain

>> How is TAPR doing with their TNC project for the DSP-93 ????
>>
>
>Funny you should ask this ...

...

>The question I am asking you and will be asking the DSP-93 development group
>and the beta-group is "If we are hopefully certain that there will be no
>major problems (which can not be guaranteed -- blues wires happen) should we
>do a run of say 50 beta boards...have the beta-testers do their thing and
>then make the other 40 kits available for sales to the DSP-93 owners ?"

In my mind, it depends how much testing happens under alpha test. If alpha
produces a fully functional TNC which interfaces completely with the
DSP-93, then beta boards will probably work for early adopters. The DSP-93
beta boards, I consider, are fully functional items and would have worked
for the first production run, if necessary.

If the beta TNC-95 boards are the first run to be interfaced to the DSP-93,
then I'd vote to have a "real" beta. Then production.

A few blue wires do not bother me.

Ron W5RKN

also:
rparsons@bga.com

15. Re: [DSP-93:1879] Re: PacComm tnc/dsp-93

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sat, 06 Jan 1996 03:07:29 +0000
To: dsp-93@tapr.org
Message-ID: <199601060326.WAA09290@camel.campbell.edu>
Rendered body type: text/plain

I'll second what Ron said. If the alpha boards work with the DSP-93 just
fine, then we should try the new scheme. If that doesn't happen, we need
the "regular" beta test run.

I think most of us would appreciate the reduction in cost...good idea to
propose this to the interested parties.

>>The question I am asking you and will be asking the DSP-93 development group

>>and the beta-group is "If we are hopefully certain that there will be no
>>major problems (which can not be guaranteed -- blues wires happen) should we
>>do a run of say 50 beta boards...have the beta-testers do their thing and
>>then make the other 40 kits available for sales to the DSP-93 owners ?"
>
>
>In my mind, it depends how much testing happens under alpha test. If alpha
>produces a fully functional TNC which interfaces completely with the
>DSP-93, then beta boards will probably work for early adopters. The DSP-93
>beta boards, I consider, are fully functional items and would have worked
>for the first production run, if necessary.
>
>If the beta TNC-95 boards are the first run to be interfaced to the DSP-93,
>then I'd vote to have a "real" beta. Then production.
>
>A few blue wires do not bother me.
>
>
>Ron W5RKN
>
>also:
>rparsons@bga.com
>
>
>
>

Mark L. Hammond   [KC4EBR]

16. Re: [DSP-93:1878] Re: PacComm tnc/dsp-93

From: ssalek@h-e.com
Date: Fri, 5 Jan 96 18:55:01 PDT
To: dsp-93@tapr.org
Message-ID: <000001A9.sm@h-e.com>
Rendered body type: text/plain

Hi Greg and others,

I can echo Ron Parsons' response, in that I think the TNC95 alpha boards need to be verified to work when mated with a DSP-93 before releasing them to more than just the beta group. But considering that the TNC95 is "all digital," hopefully there won't be any board layout problems that will require more than a few cuts and wire jumpers to correct.

As a PacComm TNC purchaser, I'd still be interested in participating in the TNC95 "extended beta," if you decide to do it that way. I think that extended beta people should be allowed access into the TNC95 beta mail group, though, since we'd be defacto beta testers, anyway. I enjoyed participating in the DSP-93 beta process, and the "real-time" debugging process via the mail group. The problem I see with PacComm is that they are leaving us DSP93 TNC purchasers in the dark, without even acknowledging our attempts at fixing the problems they should have corrected before they first allowed the units out the door. Maybe PacComm will make things right, eventually, but all I can say for now is I'm glad that I didn't punch my black DSP-93 front panel to accommodate the PacComm LEDs!

In summary, a few blue wires on the bottom of the board wouldn't bother me, either. My DSP-93 beta boards have a few, and they have worked perfectly for me for quite some time now.

73,

Stan
KD6CVL

17. [DSP-93:1878] RE: PACCOMM TNC/DSP-93

From: wtb@partyline.org
Date: Sat, 06 Jan 96 00:22:01
To: dsp-93@tapr.org
Message-ID: <9601060022.00IKD00@partyline.org>
Rendered body type: text/plain

Gregg
wtb@partyline.org would be interested in an early dsp95 beta TNC even
if some mods were necessary later.

18. Re: [DSP-93:1878] Re: PacComm tnc/dsp-93

From: "L. J. Shepherd" <ljs@west.net>
Date: Sat, 06 Jan 1996 00:27:03 -0800
To: dsp-93@tapr.org
Message-ID: <199601060826.AAA16362@acme.sb.west.net>
Rendered body type: text/plain

Greg and Group:
I concur with Ron's assessment of TNC-95 beta testing. If the Alpha Testing is comprehensive with respect to a reasonably broad sample of the current DSP-93 software available and all three boards function identically.....then I say go for it.

Having started in February of 1984 with a TNC-1 kit, I have a substantial faith in the ability of this group to produce equipment providing functionality that truly reflects the project design goals.

Someone else has pointed out that TAPR products differ from the classic commercial efforts in that individual "home hobby" participation is what makes the group go.....there are a few talented and dedicated individuals who provide the leadership and technical design expertise, but as a group, we share experiences with whatever problems come along. It is that sharing of problems and solutions openly that makes me want to stay with this group.

And no, I do not mind a few blue wires.....as long as we work together. 73, Jim K6OYY.

>
>Thought I would give an update on the TNC-95 project.
>
>Basically, several things have happened in the last few weeks. John Koster,
>W9DDD, the designer wrapped up the big project he was doing at work and had
>most of the Holidays to spend working out the PAL and hardware issues. The
>alpha-1 board now operates to some extent and John is debugging it further.
>
>With luck in the next week or so John will be able to conclude testing on
>the alpha-1 board and build the other three alpha boards for delivery to the
>firmware/software developers.
>
>Our current frame of thought is to fully test firmware on the alpha boards
>and then do a beta run.
>
>Now the question for the group. We would normally do a limited run of
>beta-boards for just the beta-group -- which is about 10 people. Beta
>testing is where the documentation is developed, checked and user testing is
>done to ensure that the firmware is going to work across the platforms. The
>current TNC-95 beta group represents a mixture of DSP-93 developers,
>original beta-testers, and some there for other apps besides DSP-93.
>
>The alpha boards as completed now have one blue wire total (thus one error -
>dealing with a PAL line for controlling the NOVRAM - I think I got that
>right John?). Hopefully after testing the 8530s this weekend (the last part
>of the board to be tested fully on the alpha-1) that will be the only error
>in the design. Keep in mind that this is using a test load from Howie
>Goldstein, N2WX. Various ports haven't been made yet and that might uncover
>something in the design that would need to be changed. Smaller issues will
>be changed in the beta, like voltage regulator facing and the addition of
>some test circuits for a later networking version and similar cosmetic
>items.
>
>The question I am asking you and will be asking the DSP-93 development group
>and the beta-group is "If we are hopefully certain that there will be no
>major problems (which can not be guaranteed -- blues wires happen) should we
>do a run of say 50 beta boards...have the beta-testers do their thing and
>then make the other 40 kits available for sales to the DSP-93 owners ?"
>
>Why I ask this is 1) to help reduce the per-board cost of the beta-run and
>2) to help provide TNC-95 to DSP-93 owners quicker than having to do another
>board crank. (Quick is all relative :-)
>
>This is something that is being thought about and hasn't been done before
>within TAPR. So -- not sure what we will do...things change over time.
>Please let me know what you think and if you would be interested in having a
>beta-board with possibly some mods required to get it working (in case
>something does happen). I know many want to have the most recent and
>wouldn't except possible changes from beta to a production, but then again I
>know some of you almost like to add things to the boards as changes are
>made.
>
>In addition, I have a QuickTime movie of the aplha board made and will try

>to make that available on the DSP-93 page when I return to Austin end of
>next week. This would allow you to see what it looks like.
>
>
>Cheers - Greg, WD5IVD
>Pres. TAPR
>
>
>

19. Re: [DSP-93:1874] tnc for dsp-93

From: quad pugh <quad@dns1.net-connect.net>
Date: Sat, 06 Jan 1996 14:04:35 +0000
To: dsp-93@tapr.org
Message-ID: <199601061401.IAA28185@dns1.net-connect.net>
Rendered body type: text/plain

At 08:20 AM 1/5/96 -0600, you wrote:
>"COME ON" Gwynn how about some information on KISS
>
>Gwynn , you do know this tnc is about worthless without KISS,
>OR DO U ???????
>
>I called PacComm yesterday and was told they don't have kiss working yet
>
>I sure wish tey had told me there was no kiss when I placed the order..
>WELL I GUESS IF I HAD BEEEN TOLD THERE WAS NO KISS THERE WOULD HAVE BEEN
>NO ORDER ......
>
>Beta testers we are, I guess.......
>
>Its hard to understand just what is taking so long ,
>guess its
>
>K keep
>I it
>S slow
>S stupid
>
>73
>
>go get them again jim 73!s nick

20. Re: [DSP-93:1879] Re: PacComm tnc/dsp-93

From: Dave Lamont <dlamont@central.co.nz>
Date: Sat, 06 Jan 1996 20:37:54 +0000
To: dsp-93@tapr.org
Message-ID: <30EEDDA2.7279@central.co.nz>
Rendered body type: text/plain

Ronald G. Parsons wrote:
>
> >> How is TAPR doing with their TNC project for the DSP-93 ????
> >>
> > >
> > >Funny you should ask this ...
> >
> > ..
> >
> > >The question I am asking you and will be asking the DSP-93 development group
> > >and the beta-group is "If we are hopefully certain that there will be no
> > >major problems (which can not be guaranteed -- blues wires happen) should we
> > >do a run of say 50 beta boards...have the beta-testers do their thing and
> > >then make the other 40 kits available for sales to the DSP-93 owners ?"
> >
> > In my mind, it depends how much testing happens under alpha test. If alpha
> > produces a fully functional TNC which interfaces completely with the
> > DSP-93, then beta boards will probably work for early adopters. The DSP-93
> > beta boards, I consider, are fully functional items and would have worked
> > for the first production run, if necessary.
> >
> > If the beta TNC-95 boards are the first run to be interfaced to the DSP-93,
> > then I'd vote to have a "real" beta. Then production.
> >
> > A few blue wires do not bother me.
> >
> > Ron W5RKN
> >
> > also:

> rparsons@bga.com

--
Hi Guys,

After my experience with the Paccomm non event, a few "blue
wires" would be of no consequence to me.

Maybe the group could also sell the suckers who punched the
front panel, a replacement

Kind Regards

Dave Lamont

Amateur Packet Radio:	zl2amd @ zl2amd.#40.nzl.oc
Internet:	dlamont@central.co.nz
Maidenhead Locator:	RF80kl
Telephone:	voice 64-6-844-9117
	fax 64-6-843-2953
Address:	510 Kennedy Road
	Napier
	New Zealand 4001

21. Re: [DSP-93:1885] Re: PacComm tnc/dsp-93

From: Greg Jones <wd5ivd@tapr.org>
Date: Sat, 6 Jan 1996 16:22:48 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199601062222.QAA02229@sys1.tapr.org>
Rendered body type: text/plain

> After my experience with the Paccomm non event, a few "blue
> wires" would be of no consequence to me.
>
> Maybe the group could also sell the suckers who punched the
> front panel, a replacement
>
>
> Kind Regards
>
> Dave Lamont
>
>
>

Hi Dave -- we do have additional front panels. I'll have to check on the
price we paid for them tough. Probably could let them go for around $5 or
so plus s/h.

Contact Dorothy next week and Ill feed her the information.

Cheers - Greg

22. RE: [DSP-93:1878] Re: PacComm tnc/dsp-93

From: Antonio Fernandez <100341.640@compuserve.com>
Date: 07 Jan 96 11:30:02 EST
To: "'DSP-93 Mail List'" <dsp-93@tapr.org>, "'Greg Jones'" <wd5ivd@tapr.org>
Message-ID: <960107163002_100341.640_EHQ90-1@CompuServe.COM>
Rendered body type: text/plain

Hi Greg,

I would like to beta test the TNC95, in case you make the 50 boards.
Don't mind the blue wires.
BTW, I am currently "beta-testing" the PacComm TNC for the DSP-93 :-)
I'd rather be a beta-tester for TAPR.

73s de Toni, ea4le

ea4le@amsat.org
TAPR#2721

De: Greg Jones
Enviado el: sabado 6 de enero de 1996 2:24
Para: INTERNET:DSP-93@TAPR.ORG

Asunto: [DSP-93:1878] Re: PacComm tnc/dsp-93

Hi DSP-93 owners,users, and lurkers.

The question I am asking you and will be asking the DSP-93 development group and the beta-group is "If we are hopefully certain that there will be no major problems (which can not be guaranteed -- blues wires happen) should we do a run of say 50 beta boards...have the beta-testers do their thing and then make the other 40 kits available for sales to the DSP-93 owners ?"

Why I ask this is 1) to help reduce the per-board cost of the beta-run and 2) to help provide TNC-95 to DSP-93 owners quicker than having to do another board crank. (Quick is all relative :-)

This is something that is being thought about and hasn't been done before within TAPR. So -- not sure what we will do...things change over time. Please let me know what you think and if you would be interested in having a beta-board with possibly some mods required to get it working (in case something does happen). I know many want to have the most recent and wouldn't except possible changes from beta to a production, but then again I know some of you almost like to add things to the boards as changes are made.

Cheers - Greg, WD5IVD
Pres. TAPR

23. PacComm

From: wb5aaa@wb5aaa.usl.edu (Jim Barron)
Date: Sun, 07 Jan 96 12:05:03 cst
To: dsp-93@tapr.org
Message-ID: <6521@wb5aaa.usl.edu>
Rendered body type: text/plain

I would like to know how many people purchased the
PacComm tnc for the dsp-93 without knowing
that it did not have KISS ?????????

I just as well beta test the TAPR board

24. [DSP-93:1874] tnc for dsp-93

From: Antonio Fernandez <100341.640@compuserve.com>
Date: 08 Jan 96 03:41:55 EST
To: DSP-93 Mail List <dsp-93@tapr.org>
Message-ID: <960108084154_100341.640_EHQ78-1@CompuServe.COM>
Rendered body type: text/plain

Hi all,

I fully agree and support Jim's comments, I am awaiting KISS
to get back my beautiful DSP-93 on the microsats.

Please Paccomm give our dsp93-tnc's a "kiss"!

What is the problem?

Toni, ea4le
ea4le@amsat.org

---------- Message ----------

From: Jim Barron, INTERNET:wb5aaa@wb5aaa.usl.edu
TO: DSP-93 Mail List, INTERNET:DSP-93@TAPR.ORG
DATE: 5/01/96 15:51

RE: [DSP-93:1874] tnc for dsp-93

"COME ON" Gwynn how about some information on KISS

Gwynn , you do know this tnc is about worthless without KISS,
OR DO U ???????

I called PacComm yesterday and was told they don't have kiss working yet

I sure wish tey had told me there was no kiss when I placed the order..
WELL I GUESS IF I HAD BEEEN TOLD THERE WAS NO KISS THERE WOULD HAVE BEEN
NO ORDER ......

Beta testers we are, I guess.......

Its hard to understand just what is taking so long ,
guess its

K keep
I it
S slow
S stupid

73

25. Re: TAPR TNC-95 beta test

From: "BBA" <bba@dscc.dk>
Date: Mon, 08 Jan 96 13:25:46 wet
To: dsp-93@tapr.org
Message-ID: <9600088211.AA821135916@smtplink.dscc.dk>
Rendered body type: text/plain

Hi Greg,

     Please count me (and the OZ7SAT group) as a potential TNC-95 beta
     tester.

     Best 73 de

     Bent/OZ6BL
     (Also oz6bl@amsat.org)

_____ Reply Separator _____
Subject: [DSP-93:1878] Re: PacComm tnc/dsp-93
Author: dsp-93@tapr.org at Internet-Mail
Date: 96-01-06 1:55

> How is TAPR doing with their TNC project for the DSP-93 ????
>

Funny you should ask this ...

Hi DSP-93 owners,users, and lurkers.

Thought I would give an update on the TNC-95 project.

Basically, several things have happened in the last few weeks. John Koster,
W9DDD, the designer wrapped up the big project he was doing at work and had
most of the Holidays to spend working out the PAL and hardware issues. The
alpha-1 board now operates to some extent and John is debugging it further.

With luck in the next week or so John will be able to conclude testing on
the alpha-1 board and build the other three alpha boards for delivery to the
firmware/software developers.

Our current frame of thought is to fully test firmware on the alpha boards
and then do a beta run.

Now the question for the group. We would normally do a limited run of
beta-boards for just the beta-group -- which is about 10 people. Beta
testing is where the documentation is developed, checked and user testing is
done to ensure that the firmware is going to work across the platforms. The
current TNC-95 beta group represents a mixture of DSP-93 developers,
original beta-testers, and some there for other apps besides DSP-93.

The alpha boards as completed now have one blue wire total (thus one error -
dealing with a PAL line for controlling the NOVRAM - I think I got that right
John?). Hopefully after testing the 8530s this weekend (the last part of the
board to be tested fully on the alpha-1) that will be the only error in the
design. Keep in mind that this is using a test load from Howie Goldstein,
N2WX. Various ports haven't been made yet and that might uncover something

in the design that would need to be changed. Smaller issues will be changed
in the beta, like voltage regulator facing and the addition of some test
circuits for a later networking version and similar cosmetic items.

The question I am asking you and will be asking the DSP-93 development group
and the beta-group is "If we are hopefully certain that there will be no
major problems (which can not be guaranteed -- blues wires happen) should we
do a run of say 50 beta boards...have the beta-testers do their thing and
then make the other 40 kits available for sales to the DSP-93 owners ?"

Why I ask this is 1) to help reduce the per-board cost of the beta-run and
2) to help provide TNC-95 to DSP-93 owners quicker than having to do another
board crank. (Quick is all relative :-)

This is something that is being thought about and hasn't been done before
within TAPR. So -- not sure what we will do...things change over time.
Please let me know what you think and if you would be interested in having a
beta-board with possibly some mods required to get it working (in case
something does happen). I know many want to have the most recent and
wouldn't except possible changes from beta to a production, but then again I
know some of you almost like to add things to the boards as changes are
made.

In addition, I have a QuickTime movie of the aplha board made and will try
to make that available on the DSP-93 page when I return to Austin end of
next week. This would allow you to see what it looks like.

Cheers - Greg, WD5IVD
Pres. TAPR

26. paccomm and other

From: matem@unipv.it (dip. Matematica- Rossella)
Date: Tue, 9 Jan 1996 10:48:29 +0100
To: dsp-93@tapr.org
Message-ID: <9601090948.AA14125@unipv.it>
Rendered body type: text/plain

Hi gang,
tnx for answer.I confirm about release 2.17 of eproms.The maior problem is:
when i load the prg from eprom all work ok.When i load an .obj with d93we in rx
all is ok,inthe ptt is always on with strange pause.....
For TNC95 i will be happy to partecipate how beta-tester.
73 from white Dolomite mountains..   Franco in3dyg

27. tapr tnc\dsp-93 board

From: Geoff Chapman <moose@triode.apana.org.au>
Date: Wed, 10 Jan 1996 08:35:00 +1100 (EST)
To: dsp-93@tapr.org
Message-ID: <Pine.LNX.3.91.960110083231.1425A-100000@triode>
Rendered body type: text/plain

To: DSP-93@tapr.org   9th Jan. 1996

Subject: [DSP-93:1880] re Paccom tnc/dsp-93

Hello Greg, if you decide to go ahead with the extended Beta board run,

           please add my name to the kit purchase kit.

                        73 geoff VK2AIT   (moose@triode.apana.org.au)

28. Re: [DSP-93:1892] tapr tnc\dsp-93 board

From: Dave Lamont <dlamont@central.co.nz>
Date: Wed, 10 Jan 1996 05:01:57 +0000
To: dsp-93@tapr.org
Message-ID: <30F34845.7554@central.co.nz>
Rendered body type: text/plain

Geoff Chapman wrote:
>
>
>
> To: DSP-93@tapr.org   9th Jan. 1996

>
> Subject: [DSP-93:1880] re Paccom tnc/dsp-93
>
>
>
> Hello Greg, if you decide to go ahead with the extended Beta board run,
>
>   please add my name to the kit purchase kit.
>
>
>
>   73 geoff VK2AIT   (moose@triode.apana.org.au)
>
> Greg,

If you go ahead with this topic pse add my name to the kit purchase
list

Dave Lamont   510 Kennedy Road, Napier, New Zealand. 4001

              dlamont@central.co

29. TNC-95

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 9 Jan 1996 23:53:26 -0600 (CST)
To: dsp-93@tapr.org (DSP-93 Build)
Message-ID: <199601100553.XAA17172@sys1.tapr.org>
Rendered body type: text/plain

TNC-95 Update

I might have left the impression in the last message that we were just right around the corner in having something available in the way of a TNC-95. Just want to let you know that the alpha process could take several more weeks depending on schedules and what happens. Best case is a few weeks -- but as we know can happen worse case could be months. Keep your fingers crossed. Firmware issues are the big factor and Howie has several major things commercially and law wise on his plate, so he will be working on the TNC-95 code as he gets time.

The beta test, using the individuals selected last fall, will proceed sometime after we have code to be tested with hardware that has been changed for the beta.

I'll post messages as things move along in regards to TNC-95 since I know several of you are interested in what is happening.

>From the response on this list, I'll plan on having 50 boards run for the rev 1 boards, which 10 will be used for the actual beta test. I'll procure parts for all 50 of the initial run. Then the beta team will rework the documentation on construction and also work out the details on the DSP-93 interface kit. There will be two kits. A TNC-95 kit and a DSP-93 install kit. The TNC-95 will be the TNC kit while the DSP-93 install kit will contain the cables, modified faceplate (if we have one) and connectors to mate the two units. (Make sense ?)

There are still many issues for the TNC-95 development group to work out regarding the DSP-93 interface kit as well as other issues regarding the TNC-95 in respect to operating with the DSP-93.

Please don't submit your names to me or the office yet for a list. When we get closer to doing something I'll ask for names and we can generate a list. My guess is that 40 units will handle the initial DSP-93 load and it should be easy to generate as many kits as we have orders for after that build. The TNC-95 is a much different kit (animal) than the more complex DSP-93 in the way of parts procurement. The only part that we might have any led time on is the processor -- which is good news as compared to other kits TAPR does.

Hope this helps everyone understand the situation.

Cheers - Greg, WD5IVD

30. Re: [DSP-93:1894] TNC-95

From: Chip Wachob <wachobc@news.cpcnet.com>
Date: Wed, 10 Jan 1996 09:32:35 -0500
To: dsp-93@tapr.org
Message-ID: <19960110143233684.AAA195@modem10.del-link.cpcnet.com>

Rendered body type: text/plain

Wondered if you were planning to do anything about the very cramped space around the regulators? I have flown mine to the case.. Seems like there should be more room. I saw another one that was built putting the regulators on the PCB and there really is not any room to install the heat sinks.

Chip
N3KDT

31. Status on PacComm TNC for DSP-93

From: "Gwyn Reedy, W1BEL" <gwyn@paccomm.com>
Date: Wed, 10 Jan 1996 19:43:38 -0500 (EST)
To: dsp-93 SIG <dsp-93@tapr.org>
Cc: File <file@paccomm.com>
Message-ID: <Pine.LNX.3.91.960110190434.7546B-100000@paccomm>
Rendered body type: text/plain

Status of problems and fixes for the PacComm TNC for the DSP-93.

Problem 1. KISS not implemented in firmware.

Status: It was not possible to cleanly port the TNC-2 type KISS to this product. Major changes to the KISS source are underway to allow faster execution and better integration with the existing TNC code.

This has been and continues to get the top priority of our programmer. Much progress has been made. I'm leary of estimates for code work, because of the 'I'm working on the last bug' syndrome which seems to be a recursive statement. Anyway, it won't be out in less than 7-10 days, but that is what the programmer anticipates now.

To those who comment that they cannot understand why the solution to the problem is taking so long, I say: Just assume that we may not be as skilled as you, or have as good of tools, or the problem may just be more complex than you imagine. I just want to say that we are trying as hard as we can and there are no additional resources available to make it go faster.

Problem 2. Reported inability to load the DSP via the PASSTHRU command of the TNC.

Background: We have had some intermittent operation of our DSP-93, but when it was in the mood, we were able to see the DSP sign-on message and generate responses to keyboard commands via the PASSTHRU facility. That seems to say that the wiring and firmware is correct, but does not stress the process as a load operation would.

Status: I have made arrangements with a highly capable and experienced DSP-93 owner to debug our DSP-93 and to document the symptoms of the difficulty with the DSP load so that we may pinpoint and solve that problem.

Problem 3. Reports of lost parameters when the TNC is powered off.

Status: We've been investigating this for some time. Our hardware people say it must be a firmware problem, and the programmer says it must be a hardware problem. (Typical engineering people!) These comments were not made to avoid investigation, but after each investigation found no cause.

After the KISS code is shipped, we'll have the programmer do some heavy checking into the initialization routines to see if there is a way the code can be 'losing' the parameters after the unit is started up. In the meantime, we will continue to look at the hardware circuits and run tests to see if we can find a reason.

To my knowledge, these are the only problems which have been reported and not resolved. If there are other problems extant, please report them as clearly and completely as possible. Posting to the SIG is fine, or send a direct copy to my address. I may not always enter a dialogue between SIG members unless I'm sure I have something to contribute. It is not always clear to me in monitoring these discussions when a problem is resolved or when it has passed the experimenting stage.

There have been a lot of unhappy comments on the SIG lately. I understand now the importance of the KISS code to many DSP-93 operators. It is not PacComm's intent to misrepresent our product nor to sell anyone a defective product. The problems above, and others that may be presented, will be corrected and each person's unit made right. This has taken a

long time and may take yet some more. Anyone who regrets purchasing the PacComm TNC is welcome to return it in good condition for a refund which is our standard policy on all products. I'll even pay TAPR for a new front panel for you if you drilled yours.

I'll answer all email, but sometimes not till the weekend. We switched from a DOS/TNOS server to a LINUX box last month, and some mail got left behind on the old box. The email seems to be running smoothly now.

I thank those of you who have the patience to stick with this project until we get it just right.

Happy New Year and 73,

Gwyn Reedy, W1BEL
PacComm Packet Radio Systems, Inc.

32. Re: [DSP-93:1896] Status on PacComm TNC for DSP-93

From: ssalek@h-e.com
Date: Thu, 11 Jan 96 10:22:20 PDT
To: dsp-93@tapr.org, gwyn@paccomm.com (Gwyn Reedy, W1BEL)
Message-ID: <000001B8.sm@h-e.com>
Rendered body type: text/plain

Gwyn, thanks for the update to the dsp-93@tapr.org mail group on your progress regarding the remaining problems and fixes to be worked out for the PacComm TNC for DSP-93.

I have a comment about your write-up of Problem 2:

>Problem 2. Reported inability to load the DSP via the PASSTHRU command of
>the TNC.
>
>Background: We have had some intermittent operation of our DSP-93, but
>when it was in the mood, we were able to see the DSP sign-on message and
>generate responses to keyboard commands via the PASSTHRU facility. That
>seems to say that the wiring and firmware is correct, but does not stress
>the process as a load operation would.

Please note that the PacComm TNC boards were supplied with a three-wire serial PASSTHRU interface (TXD, RXD, and ground) to plug into the chip socket on the DSP-93. However, the DSP-93 does need to have the handshaking signals connected or tied to appropriate fixed levels, as well (at least the RTS signal, I think). So we will need a modification from PacComm on how to configure our units to either connect or bypass handshaking, so the TNC and DSP-93 can communicate. Thus, your statement that the wiring seems to be correct cannot be true. I believe that users who have tried to use PASSTHRU have done some sort of handshaking bypass, but the specifics have not been documented on the mail group.

Dave Lamont/ZL2AMD: Can you post the hardware handshaking bypass mod that you used to test the PASSTHRU command, resulting in the reported throughput problem? Maybe this would be useful information to PacComm.

73,

Stan
KD6CVL

33. Re: [DSP-93:1893] Re: tapr tnc\dsp-93 board

From: Carol Byers <crlbyers@garlic.com>
Date: Thu, 11 Jan 1996 14:39:28 -0800 (PST)
To: dsp-93@tapr.org
Message-ID: <Pine.A32.3.91.960111143836.42131A-100000@garlic.com>
Rendered body type: text/plain

Hi Greg,

Add me to the list too.

On Tue, 9 Jan 1996, Dave Lamont wrote:

> Geoff Chapman wrote:
> >
> >
> >
> > > To: DSP-93@tapr.org 9th Jan. 1996

> >
> > Subject: [DSP-93:1880] re Paccom tnc/dsp-93
> >
> >
> >
> > Hello Greg, if you decide to go ahead with the extended Beta board run,
> >
> >   please add my name to the kit purchase kit.
> >
> >
> >
> >   73 geoff VK2AIT   (moose@triode.apana.org.au)
> >
> > Greg,
>
> If you go ahead with this topic pse add my name to the kit purchase
> list
>
> Dave Lamont   510 Kennedy Road, Napier, New Zealand. 4001
>
>   dlamont@central.co
>
>

34. Re: [DSP-93:1897] Re: Status on PacComm TNC for DSP-93

From: Dave Lamont <dlamont@central.co.nz>
Date: Thu, 11 Jan 1996 23:37:03 +0000
To: dsp-93@tapr.org
Message-ID: <30F59F1F.6ADF@central.co.nz>
Rendered body type: text/plain

ssalek@h-e.com wrote:
>
> Gwyn, thanks for the update to the dsp-93@tapr.org mail group on your progress
> regarding the remaining problems and fixes to be worked out for the PacComm TNC
> for DSP-93.
>
> I have a comment about your write-up of Problem 2:
>
> >Problem 2. Reported inability to load the DSP via the PASSTHRU command of
> >the TNC.
> >
> >Background: We have had some intermittent operation of our DSP-93, but
> >when it was in the mood, we were able to see the DSP sign-on message and
> >generate responses to keyboard commands via the PASSTHRU facility. That
> >seems to say that the wiring and firmware is correct, but does not stress
> >the process as a load operation would.
>
> Please note that the PacComm TNC boards were supplied with a three-wire serial
> PASSTHRU interface (TXD, RXD, and ground) to plug into the chip socket on the
> DSP-93. However, the DSP-93 does need to have the handshaking signals connected
> or tied to appropriate fixed levels, as well (at least the RTS signal, I think).
> So we will need a modification from PacComm on how to configure our units to
> either connect or bypass handshaking, so the TNC and DSP-93 can communicate.
> Thus, your statement that the wiring seems to be correct cannot be true. I
> believe that users who have tried to use PASSTHRU have done some sort of
> handshaking bypass, but the specifics have not been documented on the mail
> group.
>
> Dave Lamont/ZL2AMD: Can you post the hardware handshaking bypass mod that you
> used to test the PASSTHRU command, resulting in the reported throughput problem?
> Maybe this would be useful information to PacComm.
>
> 73,
>
> Stan
> KD6CVL

As requested....

pins 11 and 13 on the header were tied to ground to replicate the
steady state idle condition of the level changing chip for the tests.

Neither the modified header or the original header would allow
the DSP93 to be loaded with the PASSTHRU\DSPLOAD {filename} scenario.
Loading of the DSP93 internal firmware could be achieved readily with
or without the modifications. The internal DSP93 program menu always
appeared with the last few lines randomly formatted (unreadable)

I have long ago consigned the TNC to the tip and have
killed the file of the results of using PASSTHRU and routing the header
{after rs232 level changing} to another comport using a rs232
diagnostic.

I seem to remember looking at the dspload.c code.

```
/* Set port bits to make sure DSP93 will take data */
outportb(io+4,3)  /* Clear RTS and DTR
```

A cut down Tiny2 with logic control of baud rate and com port
switching via spare printer port and script control is going well
here. Very messy but will suffice until the TAPR TNC is released.

73 dave ZL2AMD

35. Experiences with PacComm TNC for DSP-93

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Thu, 11 Jan 1996 19:29:19 -0600
To: dsp-93@tapr.org
Message-ID: <v02130500ad1b611cbc0f@[204.251.33.18]>
Rendered body type: text/plain

A couple days ago I acquired a PacComm TNC for the DSP-93. After all the
problems reported here, I was amazed at the ease of installation and
success of operation.

I installed the TNC in two DSP-93s (a beta unit and a Production Rev 1),
just to make sure there were no hidden problems. The installation is very
easy. Remove U211 and plug in a supplied plug for the serial passthru port.
Replace the Modem Disconnect Header to Interface Port cable with a supplied
DB-25 and header which plugs into the TNC. This becomes the serial port
connection to the computer. I did drill five holes in the front panel for
the LEDs for the TNC. A template is provided. This was the most time
consuming task. The TNC plugs into the DSP Modem Disconnect Header and the
Power conector JP205. It mounts above Board 2 on supplied spacers. Jumpers
are provided for the four port initialization lines (this should be copied
by the DSP-93). That's it. The Volume Control, Reset switch and speaker
jack are untouched.

I turned it on (discovered the terminal baud rate was 9600, and reset it to
19200). Set MYCALL, DELETE and a few other parameters for the TNC. Typed
PASSTHRU ON and got the DSP * prompt. Pressed ? and got the command
summary. This showed the only problem I discovered -- the output of
characters suffers from data overrun (more on this later).

Ran the test programs, both from EPROM and by loading from disk using
D93WE. All performed exactly as expected.

I connected the Radio 1 and Radio 2 ports to my Icom 970. I had previously
adjusted the DSP-93 for 9600 FSK modems on port 1 and 1200 PKT modems on
port 2.
I loaded PKTP2 from EPROM and logged into TexNet on packet. Also monitored
packets from MIR. Ran APRtrak in preparation for the SPRE experiment on
STS-72. The combo performed flawlessly. I loaded FSKP1 and copied packets
from KO-23 and KO-25. KISS is not yet implemented (see Gwyn Reedy's message
[DSP-93:1896] Status on PacComm TNC for DSP-93). The FSK modem did all it
could without KISS.

As I mentioned above, the PASSTHRU output from the DSP-93 suffers from data
overrun. I made some data rate tests on the DSP-93 and found that it sends
data at about 1920 bytes per second. This is very fast (the maximum
possible at 19.2 kbs). The DSP-93 really does have hardware handshaking on
this output port. RTS must be asserted for the DSP-93 to output data. Data
is held if RTS is not asserted (data is not lost). RTS asserted corresponds
to U211-11 being low. In the PacComm implementation, U211-11 is left
floating. Since U211-11 is connected to U212-36 and U212 has high impedance
inputs, the value the UART perceives at pin 36 may be high or low depending
on whatever leakage currents exist. In my case (both DSP-93's) U212-36
floats low and all is well. Persons having passthru problems may have
U212-36 floating high (or worse, floating around between both values).

If the serial port on the TNC doing the passthrough function has an RTS
signal available, it should be attached to U211-11. This would allow the
TNC to do hardware handshake flow control on DSP-93 output through the
serial port. Right now, a lot of data overflow is occurring. I have
communicated this to Gwyn at PacComm. PASSTHRU at high speeds in very

important, e.g. the APT code runs at 38.4 kbs.

In summary, I found no problems except the data overrun of PASSTHRU output.
Programs were loaded both from EPROM and from disk using D93WE.

My EPROM version is 3.2.9.2 12/12/95.

Ron W5RKN

also:
rparsons@bga.com

36. Please don't laugh... I have to ask...

From: Jon <jandrews@i-2000.com>
Date: Thu, 11 Jan 1996 00:25:17 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BADFBB.5FEF32E0@riverhead3.access1.dh.i-2000.net>
Rendered body type: text/plain

Hello all,

Don't laugh I nave to ask the question...

Has anyone tried to setup a DSP-93/Pacomm-93 with a Rad Shack HTX-100 or a Uniden similar type radio for satellite work? Was it successful or too frustrating?

The reason I ask is that I have Down East Microwave transverters for 430 and 1296. I presently use a 2 m Yaesu FT-290 mkII for 1296 and TS-440s for 430 as IF radios...

I have converted a HTX-100 for my 430 transverter and it seems to function on phone (USB only) FB. I have built but have not yet installed a 2m to 10m transverter in a HTx-100 or Uniden for my 1296 transverter.

Now this is not a very elegant solution but it makes a nice small portable station for mountain top DXing or contesting (my favorite). I would like to use the same package to dabble with PAC-SATs, maybe a Gateway BBS feeding my node stack.

Any ideas?

73 de WA2YVL - Jon Andrews
FN30rx

NNNN

37. Re:[DSP-93:1900] Experiences with PacComm TNC for DSP-93

From: Antonio Fernandez <100341.640@compuserve.com>
Date: 12 Jan 96 05:20:42 EST
To: DSP-93 Mail List <dsp-93@tapr.org>
Message-ID: <960112102042_100341.640_EHQ91-1@CompuServe.COM>
Rendered body type: text/plain

Hi Ron,

I think that most of the complaints/problems reported here
(at least those of mine) are software related, mainly the delay
in the KISS implementation (note that KISS is a must for satellite
PB/PG operation and that the current firmware can be considered as a
beta release) and the dspload function (perhaps this is just a h/w issue).

I received a kind personal message from Gwyn explaining why this
happened.
Maybe PacComm understimated the importance of KISS and the
number of people willing to use their DSP-93s in the sats. On top of that
the KISS implementation with this particular h/w turned out to be
harder that anticipated.

There is no doubt that from the h/w point of view
the PacComm TNC for DSP-93 is a smart solution and, as you
point, the installation is very easy.

Best 73 de Toni, ea4le

ea4le@amsat.og

>A couple days ago I acquired a PacComm TNC for the DSP-93. After

>all the problems reported here, I was amazed at the ease of
>installation and success of operation.

38. RE: [DSP-93:1888] PacComm

From: Antonio Fernandez <100341.640@compuserve.com>
Date: 12 Jan 96 17:35:26 EST
To: "'INTERNET:DSP-93@TAPR.ORG'" <DSP-93@tapr.org>,
"'Jim Barron'" <wb5aaa@wb5aaa.usl.edu>
Message-ID: <960112223525_100341.640_EHQ141-2@CompuServe.COM>
Rendered body type: text/plain

Hi Jim,

When I made the order for the PacComm TNC for DSP-93 I was aware that
kiss, as the dspload function, was not yet implemented in the firmware.

I was expecting PacComm to release the new firmware with the full fuctionality
soon after the announcement of the TNC availability.

Best 73s de Toni, ea4le

e-mail : ea4le@amsat.org

De: Jim Barron
Enviado el: domingo 7 de enero de 1996 19:50
Para: INTERNET:DSP-93@TAPR.ORG
Asunto: [DSP-93:1888] PacComm

I would like to know how many people purchased the
PacComm tnc for the dsp-93 without knowing
that it did not have KISS ?????????

I just as well beta test the TAPR board

39. Modems for SPRE

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Mon, 15 Jan 1996 13:25:04 -0600
To: dsp-93@tapr.org
Message-ID: <v02130501ad20591f6b3e@[204.251.33.1]>
Rendered body type: text/plain

While preparing for the SPRE experiment on STS-72, I wanted the best
low-signal capabilities of the packet modem. I tried an MFJ-1270B, AEA
DSP-2232 and the DSP-93/PacComm TNC, and guess what, I found the DSP-93
combo the best. No scientific data, but a good gut feel. Also did better
that a DSP-12 across town.

Used the PKT modem in the 2.17 EPROM. Thanks Frank!

Ron W5RKN

also:
rparsons@bga.com

40. Re: [DSP-93:1904] Modems for SPRE

From: fperkins@onramp.net
Date: Mon, 15 Jan 1996 19:39:33 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199601160139.TAA26956@mailhost.onramp.net>
Rendered body type: text/plain

Hi Ron,

Thanks for the report. Let me know how the SPRE experiment
turns out.

73 Frank WB5IPM

41. Another TAPR/AMSAT DSP-93 run

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 16 Jan 1996 01:54:49 -0600 (CST)

To: dsp-93@tapr.org (DSP-93 Build), amsat-bb@amsat.org (AMSAT BB Mail Group),
        tapr-bb@tapr.org (TAPR-BB mailing)
Message-ID: <199601160754.BAA16338@sys1.tapr.org>
Rendered body type: text/plain

DSP-93   The TAPR/AMSAT Joint DSP Program

Announcement of Spring Kit Sales

TAPR is now taking orders until March 1st, 1996 for the next DSP-93 kit production.

Full information can be found on www.tapr.org or in ftp.tapr.org/tapr/dsp93. Software and documentation can be previewed at either of these locations.

In addition, a DSP-93 e-mail list is maintained and questions regarding the unit can be asked there. You can use the TAPR web page to subscribe or send e-mail to listserv@tapr.org and in the message body write subscribe dsp-93 YourFullName.

Please pass the word so that we can fullfill the entire order for the Spring.

Ordering your Kit

The DSP-93 will sell for $430 as a complete kit, including enclosure and power supply. If you are in a country that can not use the 110V supply, $420 will purchase the unit without supply.

TAPR kits can be complex depending on the kitting experience of each builder. We donUt think you will have trouble with the DSP-93 kit, but it does require some knowledge and experience to successfully go from a kit to a finished, usable unit, depending on the mode of operations. For data radio applications (i.e. 9600 baud FSK), special modifications must be made to your radio for proper operation of the DSP-93. Unlike other TAPR kits in the past, only the interface to the radio and the serial cable to the computer (DB-9) will be the responsibility of the kit builder. All other parts will be in the kit ready for complete assembly.

On a positive note, the TAPR TNC-95 (for use with the DSP-93) is gaining closure and should be available around the time of this next shipment of DSP-93 kits. Also, Paccomm now offers a TNC for usage inside the TAPR/AMSAT DSP-93.

Due to the cost per-unit of the DSP-93, TAPR and AMSAT are unable to fund the total purchasing of inventory that may sit idle on the shelf for months. TAPR and AMSAT are requiring that kit purchasers provide VISA/MC information or checks/money orders with their initial purchases. Money for the initial kit purchase will be deposited upon receipt to cover kitting costs, with kits being shipped during the Spring of 1996.

Orders can be mailed to the TAPR address: 8987-309 E. Tanque Verde Rd #337, Tucson, Az, 85749-9399, call (817) 383-0000 (Office Hours: Tue-Fri, 9am-12noon, 3pm-5pm Central Time), fax (817) 566-2544, tapr@tapr.org, www.tapr.org. If you have questions concerning the unit, please write or call TAPR for an information pamphlet.

Note to TAPR members: Since this is a joint project, this kit will not have a membership discount attached.

References
Stricklin, Bob. (1994). TAPR/AMSAT Joint DSP Project: DSP-93. Proceedings of the TAPRJ1994 Annual Meeting. Tucson Amateur Packet Radio Corp.

Stricklin, Bob and Greg Jones. (1993). TAPR/AMSAT DSP-93 Project. Proceedings of the 1993 AMSAT-NA. AMSAT.

Stricklin, Bob. (1993). DSP-93: The Joint DSP Program (TAPR/AMSAT). Issue #52, Fall 1993, Packet Status Register. pp. 4-5. Tucson Amateur Packet Radio Corp.

42. WISP and DSP-93

From: Art Mercer <amercer@calvin.stemnet.nf.ca>
Date: Sun, 21 Jan 1996 00:30:37 -0330
To: hammond@camel.campbell.edu

Cc: DSP-93@tapr.org
Message-ID: <199601210400.AAA08444@calvin.stemnet.nf.ca>
Rendered body type: text/plain

Hi Mark

Thanks for the info, I've ordered the new 2.17 eproms.

I had the jumpers on the wrong disconnect header. All jumpers are now in
place on the PK-232 modem disconnect header. Still nothing coming through on
pin 17. Tried HF packet and LEDs blinked on but still no signal.CON LED will
not come on with strong signals from KO-23 or KO-25 and good eye pattern on
scope.

I don't think the 2.17 eprom header will fix the problem as the 2.15 worked
before I installed the modem disconnect header on the PK-232.

Is there anything I can check in the DSP-93 concerning the recieve signal?

Concerning WISP - can you tell me exactly what you do with the PK-232 before
you run WISP or PB,PG concerning the KISS mode?

Also on the bottom of the ground station control screen there are headers
satellite, az, el, etc.. On my screen is blank under those headers,
shouldn't the satellite info be there?

Thanks
Bill VO1OR

43. Re: [DSP-93:1907] WISP and DSP-93

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sun, 21 Jan 1996 07:14:41 -0600
To: dsp-93@tapr.org
Message-ID: <v02130501ad27ec003f23@[204.251.33.17]>
Rendered body type: text/plain

>Hi Mark
>
>Thanks for the info, I've ordered the new 2.17 eproms.
>
>I had the jumpers on the wrong disconnect header. All jumpers are now in
>place on the PK-232 modem disconnect header. Still nothing coming through on
>pin 17. Tried HF packet and LEDs blinked on but still no signal.CON LED will
>not come on with strong signals from KO-23 or KO-25 and good eye pattern on
>scope.
>
>I don't think the 2.17 eprom header will fix the problem as the 2.15 worked
>before I installed the modem disconnect header on the PK-232.
>
>Is there anything I can check in the DSP-93 concerning the recieve signal?

Check the signal at TP1 on the DSP-93 with a scope. For KO-23 etc. the
signal should be a little less than 1 V p-p. More is NOT better.

>Concerning WISP - can you tell me exactly what you do with the PK-232 before
>you run WISP or PB,PG concerning the KISS mode?
>
>Also on the bottom of the ground station control screen there are headers
>satellite, az, el, etc.. On my screen is blank under those headers,
>shouldn't the satellite info be there?

Add satellites with the Tracking / Track menu.

>
>Thanks
>Bill VO1OR

Ron W5RKN

also:
rparsons@bga.com

44. Re: [DSP-93:1908] Re: WISP and DSP-93

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 21 Jan 1996 21:21:36 +0000
To: dsp-93@tapr.org

Message-ID: <199601212144.QAA15976@camel.campbell.edu>
Rendered body type: text/plain

Hi Art,

Thanks to Ron for helping to try and find the signal in the previous message...
>
>>Concerning WISP - can you tell me exactly what you do with the PK-232 before
>>you run WISP or PB,PG concerning the KISS mode?
>>

Oh...this is an ugly task. This depends on the eprom version you have.
Basically, you have to send the TNC a series of commands BEFORE running Wisp
and after a pass. Actually, you can schedule events in Wisp to do it
automatically before and after each pass.   That is what I had it do, for
the short time that I used the PK-232 with the DSP-93.

[Here comes the tangent for this thread--my advice? Buy a cheap MFJ-1270C,
PacCom TNC like the TINY-2, or wait a few months for the TNC-95. They will
go in and out of kissmode "correctly" and will support 19.2k serial speeds.
The PK-232 will only do 9600 baud and it DOES miss data at 9600 baud with
Wisp and PB/PG (well, ok, mine did!).]

My elmer, KC4SA, wrote a program that we use to get the PK-232 in and out of
KISS. The program is called "kissthis.exe" (yes, pun intended!) and it can
be used to put the PK-232 in and out of KISS mode. Oh, our PK-232 are
pre-mailbox units and have pretty old eproms. Some may not take this much
work. Your PK-232 manual should cover which commands and in what order they
need to be sent to the PK-232.

If you would like a copy of KISSTHIS.exe, just let me know and I'll see that
you get a copy. It works dandy..

>Also on the bottom of the ground station control screen there are headers
>>satellite, az, el, etc.. On my screen is blank under those headers,
>>shouldn't the satellite info be there?
>
>Add satellites with the Tracking / Track menu.

You will probably first have to creat a list of satellites, too under
Database/Update/create before you can select them as above...been a while
since I had to do that...

>
>
>>
>>Thanks
>>Bill VO1OR
>
>Ron W5RKN
>
>also:
>rparsons@bga.com
>
>
>
>

Mark L. Hammond   [KC4EBR]

45. RE: [DSP-93:1901] Please don't laugh... I have to ask...

From: Jon <jandrews@i-2000.com>
Date: Sun, 21 Jan 1996 18:55:04 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAE843.245DF460@riverhead3.access1.dh.i-2000.net>
Rendered body type: text/plain

Hello again...

I sent this message on the loop and did not get any replies from someone that has given it a go. Should
 I therefore consider it a bad idea?

73
Jon WA2YVL

From: Jon[SMTP:jandrews@i-2000.com]
Sent: Thursday, January 11, 1996 3:40 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1901] Please don't laugh... I have to ask...

Hello all,

Don't laugh I nave to ask the question...

Has anyone tried to setup a DSP-93/Pacomm-93 with a Rad Shack HTX-100 or =
a Uniden similar type radio for satellite work? Was it successful or =
too frustrating?

The reason I ask is that I have Down East Microwave transverters for 430 =
and 1296. I presently use a 2 m Yaesu FT-290 mkII for 1296 and TS-440s =
for 430 as IF radios...

I have converted a HTX-100 for my 430 transverter and it seems to =
function on phone (USB only) FB. I have built but have not yet =
installed a 2m to 10m transverter in a HTx-100 or Uniden for my 1296 =
transverter.

Now this is not a very elegant solution but it makes a nice small =
portable station for mountain top DXing or contesting (my favorite). I =
would like to use the same package to dabble with PAC-SATs, maybe a =
Gateway BBS feeding my node stack.

Any ideas?

73 de WA2YVL - Jon Andrews
FN30rx

NNNN

46. Re: [DSP-93:1910] RE: Please don't laugh... I have to ask...

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Mon, 22 Jan 1996 23:37:36 +0000
To: dsp-93@tapr.org
Message-ID: <199601222338.SAA11931@camel.campbell.edu>
Rendered body type: text/plain

Hi John,

Hey, try it and let us know how it works!

Are you trying to run the 9600 or 1200 baud birds? You need FM from the
discriminator for the 9600 birds, and side band (regular audio) for the 1200
birds. (Your message is not clear about what you want to do with the
DSP-93...maybe thus the lack of answers?)

I used an ICOM-735 and 435 downconverter for receiving AO-16, LO-19, and
FO-20 (all 1200 baud birds) some time ago. I was then using the TAPR PSK
modem and a PK-232. It worked dandy.

>From: Jon[SMTP:jandrews@i-2000.com]
>Sent: Thursday, January 11, 1996 3:40 PM
>To: dsp-93@tapr.org
>Subject: [DSP-93:1901] Please don't laugh... I have to ask...
>
>Hello all,
>
>Don't laugh I nave to ask the question...
>
>Has anyone tried to setup a DSP-93/Pacomm-93 with a Rad Shack HTX-100 or =
>=3D
>a Uniden similar type radio for satellite work? Was it successful or =
>=3D
>too frustrating?
>
>The reason I ask is that I have Down East Microwave transverters for 430 =
>=3D
>and 1296. I presently use a 2 m Yaesu FT-290 mkII for 1296 and TS-440s =
>=3D
>for 430 as IF radios...
>
>I have converted a HTX-100 for my 430 transverter and it seems to =3D
>function on phone (USB only) FB. I have built but have not yet =3D
>installed a 2m to 10m transverter in a HTx-100 or Uniden for my 1296 =3D

>transverter.
>
>Now this is not a very elegant solution but it makes a nice small =3D
>portable station for mountain top DXing or contesting (my favorite). I =
>=3D
>would like to use the same package to dabble with PAC-SATs, maybe a =3D
>Gateway BBS feeding my node stack.
>
>Any ideas?
>
>
>73 de WA2YVL - Jon Andrews
>FN30rx
>
>NNNN
>
>
>
>
>
>

Mark L. Hammond   [KC4EBR]

47. RE: [DSP-93:1911] RE: Please don't laugh... I have to ask...

From: Jon <jandrews@i-2000.com>
Date: Mon, 22 Jan 1996 19:29:56 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAE906.4F2AF1C0@riverhead6.access1.dh.i-2000.net>
Rendered body type: text/plain

Mark,

Your message was very helpful.... I was planning on trying the 1200B birds first as it should require less technically taxing then move up to the 9600B birds... The uniden does FM but the Rad Shack unit does not.... plus I hav never "played" with birds before... should be interesting.... Thanks for pointing me in the right direction!

73
de Jon WA2YVL
NNNN

From: Mark L. Hammond[SMTP:hammond@camel.campbell.edu]
Sent: Monday, January 22, 1996 12:41 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1911] RE: Please don't laugh... I have to ask...

Hi John,

Hey, try it and let us know how it works!

Are you trying to run the 9600 or 1200 baud birds? You need FM from the discriminator for the 9600 birds, and side band (regular audio) for the 1200 birds. (Your message is not clear about what you want to do with the DSP-93...maybe thus the lack of answers?)

I used an ICOM-735 and 435 downconverter for receiving AO-16, LO-19, and FO-20 (all 1200 baud birds) some time ago. I was then using the TAPR PSK modem and a PK-232.   It worked dandy.

>From: Jon[SMTP:jandrews@i-2000.com]
>Sent: Thursday, January 11, 1996 3:40 PM
>To: dsp-93@tapr.org
>Subject: [DSP-93:1901] Please don't laugh... I have to ask...
>
>Hello all,
>
>Don't laugh I nave to ask the question...
>
>Has anyone tried to setup a DSP-93/Pacomm-93 with a Rad Shack HTX-100 or =
>=3D
>a Uniden similar type radio for satellite work? Was it successful or =
>=3D
>too frustrating?
>

>The reason I ask is that I have Down East Microwave transverters for 430 =
>=3D
>and 1296. I presently use a 2 m Yaesu FT-290 mkII for 1296 and TS-440s =
>=3D
>for 430 as IF radios...
>
>I have converted a HTX-100 for my 430 transverter and it seems to =3D
>function on phone (USB only) FB. I have built but have not yet =3D
>installed a 2m to 10m transverter in a HTx-100 or Uniden for my 1296 =3D
>transverter.
>
>Now this is not a very elegant solution but it makes a nice small =3D
>portable station for mountain top DXing or contesting (my favorite). I =
>=3D
>would like to use the same package to dabble with PAC-SATs, maybe a =3D
>Gateway BBS feeding my node stack.
>
>Any ideas?
>
>
>73 de WA2YVL - Jon Andrews
>FN30rx
>
>NNNN
>
>
>
>
>
>

Mark L. Hammond   [KC4EBR]

48. Webersat

From: dmedley@ix.netcom.com (David Medley)
Date: Sun, 28 Jan 1996 13:17:40 -0800
To: dsp-93@tapr.org
Message-ID: <199601282117.NAA15724@ix13.ix.netcom.com>
Rendered body type: text/plain

I am having absolutely no luck with Webersat. PACSAT and LUSAT are just fine
but I can get no intelligence from Webersat. I would be interested to hear
from anyone who has copied image files from Webersat recently. Which modem
did you use?
73 de Dave KI6QE

49. Re: WISP and DSP-93

From: "Wolf D. Hoeller" <Wolf.Hoeller@uibk.ac.at>
Date: Mon, 29 Jan 1996 22:12:53 MET-1
To: dsp-93@tapr.org
Message-ID: <199601292123.AA07806@uibk.ac.at>
Rendered body type: text/plain

Hello DSP-93 User,

I'm starting to use my new DSP-93 in combination with WISP. My question is
how to reset the DSP after an orbit into a stable state without a
high PTT line or so?

Thanks
de Wolf
OE7FTJ@ AMSAT.ORG

50. Re: [DSP-93:1914] Re: WISP and DSP-93

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Mon, 29 Jan 1996 16:23:16 -0600
To: dsp-93@tapr.org
Message-ID: <v02130502ad32f8a53d46@[204.181.160.28]>
Rendered body type: text/plain

>Hello DSP-93 User,
>
>I'm starting to use my new DSP-93 in combination with WISP. My question is
>how to reset the DSP after an orbit into a stable state without a
>high PTT line or so?
>
>Thanks

>de Wolf
>OE7FTJ@ AMSAT.ORG

Have you set the jumpers for the i/o line initialization?

Assuming you have the current production release and EPROM 2.17, see page
36 of the Assembly manual. If not, e-mail me for further information.

Ron W5RKN

also:
rparsons@bga.com

51. Re: [DSP-93:1915] Re: WISP and DSP-93

From: "Wolf D. Hoeller" <Wolf.Hoeller@uibk.ac.at>
Date: Tue, 30 Jan 1996 23:48:22 MET-1
To: dsp-93@tapr.org
Message-ID: <199601311745.AA07816@uibk.ac.at>
Rendered body type: text/plain

Hi Ron,

> Assuming you have the current production release and EPROM 2.17, see page
> 36 of the Assembly manual. If not, e-mail me for further information.

Ooops! Yes, after reading the _whole_ manual I have found the
configuration. Thanks.

But the remaining question is how to setup the DSP into a neutral
state after an orbit until WISP loads the next configuration down?

deWolf
OE7FTJ

52. Re: [DSP-93:1916] Re: WISP and DSP-93

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Wed, 31 Jan 1996 13:44:53 -0600
To: dsp-93@tapr.org
Message-ID: <v02130500ad3576054f16@[204.251.33.25]>
Rendered body type: text/plain

>Hi Ron,
>
>> Assuming you have the current production release and EPROM 2.17, see page
>> 36 of the Assembly manual. If not, e-mail me for further information.
>
>Ooops! Yes, after reading the _whole_ manual I have found the
>configuration. Thanks.
>
>But the remaining question is how to setup the DSP into a neutral
>state after an orbit until WISP loads the next configuration down?
>
>deWolf
>OE7FTJ

That's a little more difficult. I assume you want to reset the DSP-93 so
the modem program is no longer running. Most (but not all) modems respond
to the character 'r' sent on the DSP-93 serial input to reset the DSP-93.

Set up a WiSP event to run shortly after the satellite pass. Have that
event send an 'r' to the DSP-93. There are many ways to do that. The
simplest is to have the event run a .BAT file which copies a file containg
one character ('r') to COMn:

Ron W5RKN

also:
rparsons@bga.com

53. Re: [DSP-93:1916] Re: WISP and DSP-93

From: hammond@camel.campbell.edu (Mark L. Hammond)
Date: Wed, 31 Jan 1996 16:01:40 -0500
To: dsp-93@tapr.org
Message-ID: <v01540b06ad3540306c65@[152.38.1.2]>
Rendered body type: text/plain

Hi Wolf,

Not to be nosey, but:

1) why do you want to reset the DSP after a pass? The code is setup so
that sending the NEXT code a)first resets the DSP-93, then b) the new modem
is uploaded to the DSP-93. That is to PREVENT having to go through a reset
after each use, or prior to each use.

2) the software is looking the single character "r" or "R" to reset the
unit. If you really wish to reset the unit after each pass, you CAN do
this from inside of Wisp. You "simply" need to tell Wisp to launch a
serial application after each pass for each bird that you wish to do the
reset that sends only the letter "r" to the DSP-93. This can and does
work. I have a program my elmer wrote who's sole function is dump a text
file to a serial port when invoked, and then quit. It works dandy.

Wisp is really not "loading the next configuration", unless you are having
it load the DSP-93 by a .bat file that runs dspload.exe with the selected
modem. I do this, too. I have Wisp load the 9600 modem just before each
pass, in case the power has gone off/on and reset the DSP-93 during the
day. Works like a charm. Even if the unit still has the code loaded, no
harm done. It first reset the unit, then uploads the code again.

Does this information, or strategy, help?

>But the remaining question is how to setup the DSP into a neutral
>state after an orbit until WISP loads the next configuration down?
>
>deWolf
>OE7FTJ

Mark L. Hammond [KC4EBR]
Campbell University

54. Re: [DSP-93:1918] Re: WISP and DSP-93

From: fperkins@onramp.net
Date: Wed, 31 Jan 1996 21:07:59 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602010307.VAA19549@mailhost.onramp.net>
Rendered body type: text/plain

Hi Mark,

Could you pass along copy of the "dump a text file to the com port" SW
to me (including source if possible)?

73 Frank WB5IPM

PS - How is the APT test going?

55. Re: [DSP-93:1919] Re: WISP and DSP-93

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Wed, 31 Jan 1996 21:55:31 -0600
To: dsp-93@tapr.org
Message-ID: <v02130500ad35e9375ffc@[204.251.33.7]>
Rendered body type: text/plain

>Hi Mark,
>
>Could you pass along copy of the "dump a text file to the com port" SW
>to me (including source if possible)?
>
>
>73 Frank WB5IPM
>
>PS - How is the APT test going?

Mark,

I'd suggest uploading it to ftp://ftp.tapr.org/tapr/dsp93/util/

Ron W5RKN

also:
rparsons@bga.com

56. Paccomm Firmware

From: Jon <jandrews@i-2000.com>
Date: Wed, 31 Jan 1996 22:52:15 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF02E.C7428FE0@riverhead3.access1.dh.i-2000.net>
Rendered body type: text/plain

Howdy folks...

Can anyone tell me where I can get the new images for the Paccomm 93 TNC firmware...

I have the older code that does not support pass... I have searched hi and low with no joy...

73 de Jon
WA2YVL - FN30rx
NNNN

February 1996

Original source file: dsp.9602
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9602

1. Re: [DSP-93:1921] Paccomm Firmware

From: "Gwyn Reedy, W1BEL" <gwyn@paccomm.com>
Date: Thu, 1 Feb 1996 06:34:32 -0500 (EST)
To: dsp-93@tapr.org
Message-ID: <Pine.LNX.3.91.960201062908.1952A-100000@paccomm>
Rendered body type: text/plain

On Wed, 31 Jan 1996, Jon wrote:

>
> Howdy folks...
>
> Can anyone tell me where I can get the new images for the Paccomm 93 TNC firmware...
>
> I have the older code that does not support pass... I have searched hi and low with no joy...
>
> 73 de Jon
> WA2YVL - FN30rx
> NNNN

Look in the directory tapr\dsp93\upload on the TAPR ftp server. There are
three EPROM images for the TNC. Only the most recent one has the
passthrough.

A new image should be uploaded soon (after the weekend?) which has larger
buffers to reduce overruns from the DSP to the TNC that were reported by
Ron, W5RKN. The image also will have at least a partial KISS
implementation. The porting has nearly been completed, but there remains
a problem with KISS transmit. All the 'commands' and the receive function
work just fine.

I'm hoping the transmit problem can be resolved over the weekend. Either
way, I'll upload a new image after returning from the Miami Hamfest this
weekend.

73, Gwyn

_ _
Gwyn Reedy, W1BEL   gwyn@paccomm.com   W1BEL@amsat.org

PacComm Packet Radio Systems, Inc.   +(813) 874-2980 Fax:+(813) 872-8696
4413 N. Hesperides St.   BBS: +(813) 874-3078 (V.34)
Tampa, FL 33614-7618 USA   info@paccomm.com http://www.paccomm.com

2. RE: [DSP-93:1922] Re: Paccomm Firmware

From: Jon <jandrews@i-2000.com>
Date: Thu, 1 Feb 1996 08:11:27 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF07D.3BC11DC0@riverhead4.access1.dh.i-2000.net>
Rendered body type: text/plain

Gwyn,

Have you tried to access the FTP area at the TAPR site? I have not been able to access it for nearly a
month when I found out there was new code around... what could be the problem?

73 de Jon
WA2YVL - FN30rx
NNNN

From: Gwyn Reedy, W1BEL[SMTP:gwyn@paccomm.com]
Sent: Thursday, February 01, 1996 12:50 AM
To: dsp-93@tapr.org
Subject: [DSP-93:1922] Re: Paccomm Firmware

On Wed, 31 Jan 1996, Jon wrote:

>
> Howdy folks...
>
> Can anyone tell me where I can get the new images for the Paccomm 93 TNC firmware...
>
> I have the older code that does not support pass... I have searched hi and low with no joy...

```
>
> 73 de Jon
> WA2YVL - FN30rx
> NNNN

Look in the directory tapr\dsp93\upload on the TAPR ftp server. There are
three EPROM images for the TNC. Only the most recent one has the
passthrough.

A new image should be uploaded soon (after the weekend?) which has larger
buffers to reduce overruns from the DSP to the TNC that were reported by
Ron, W5RKN. The image also will have at least a partial KISS
implementation. The porting has nearly been completed, but there remains
a problem with KISS transmit. All the 'commands' and the receive function
work just fine.

I'm hoping the transmit problem can be resolved over the weekend. Either
way, I'll upload a new image after returning from the Miami Hamfest this
weekend.

73, Gwyn
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Gwyn Reedy, W1BEL            gwyn@paccomm.com           W1BEL@amsat.org

PacComm Packet Radio Systems, Inc.    +(813) 874-2980  Fax:+(813) 872-8696
4413 N. Hesperides St.               BBS: +(813) 874-3078 (V.34)
Tampa, FL 33614-7618 USA          info@paccomm.com  http://www.paccomm.com
```

3. Re: [DSP-93:1923] Re: Paccomm Firmware

```
From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Thu, 1 Feb 1996 10:43:46 -0600
To: dsp-93@tapr.org
Message-ID: <v02130500ad369cbb8d69@[204.251.33.70]>
Rendered body type: text/plain
```

```
>------ =_NextPart_000_01BAF07D.3BCA4580
>Content-Type: text/plain; charset="us-ascii"
>Content-Transfer-Encoding: quoted-printable
>
>Gwyn,
>
>Have you tried to access the FTP area at the TAPR site?  I have not been =
>able to access it for nearly a month when I found out there was new code =
>around... what could be the problem?=20
>
>73 de Jon
>WA2YVL - FN30rx
>NNNN
>

Your note was a bit messy - looks like a MicroSoft problem

The TAPR site has been having some problems. Try connecting to the ftp site
through the Web page (http://www.tapr.org/tapr/). I can often get through
that way when the ftp lines are busy.

But I have accessed it many times in tha last month.


Ron W5RKN

also:
rparsons@bga.com
```

4. Re: [DSP-93:1918] Re: WISP and DSP-93

```
From: "Wolf D. Hoeller" <Wolf.Hoeller@uibk.ac.at>
Date: Thu, 1 Feb 1996 16:29:03 MET-1
To: dsp-93@tapr.org
Message-ID: <199602011630.AA04921@uibk.ac.at>
Rendered body type: text/plain
```

```
Hi Mark,

thanks a lot for your help!

> Wisp is really not "loading the next configuration", unless you are having
> it load the DSP-93 by a .bat file that runs dspload.exe with the selected
> modem.  I do this, too.   I have Wisp load the 9600 modem just before each
> pass, in case the power has gone off/on and reset the DSP-93 during the
```

> day. Works like a charm. Even if the unit still has the code loaded, no
> harm done. It first reset the unit, then uploads the code again.

Yes this is my idea too in the case of powerloss between two orbits.

Thanks
de Wolf.

5. Re: [DSP-93:1924] Re: Paccomm Firmware

From: hammond@camel.campbell.edu (Mark L. Hammond)
Date: Thu, 1 Feb 1996 14:16:02 -0500
To: dsp-93@tapr.org
Message-ID: <v01540b0ead367ac35a08@[152.38.1.2]>
Rendered body type: text/plain

In addition, there have been some DNS changes recently. Make sure whatever
you are using for FTP access is NOT "remembering" the old IP address in a
"hosts" file or setup file somewhere. That can make you look for the right
name, but the wrong IP address.

>>Gwyn,
>>
>>Have you tried to access the FTP area at the TAPR site? I have not been =
>>able to access it for nearly a month when I found out there was new code =
>>around... what could be the problem?=20
>>
>>73 de Jon
>>WA2YVL - FN30rx
>>NNNN
>>
>
>Your note was a bit messy - looks like a MicroSoft problem
>
>The TAPR site has been having some problems. Try connecting to the ftp site
>through the Web page (http://www.tapr.org/tapr/). I can often get through
>that way when the ftp lines are busy.
>
>But I have accessed it many times in tha last month.
>
>
>Ron W5RKN
>
>also:
>rparsons@bga.com

Mark L. Hammond [KC4EBR]
Campbell University

6. Re: [DSP-93:1923] Re: Paccomm Firmware

From: Greg Jones <wd5ivd@tapr.org>
Date: Thu, 1 Feb 1996 14:20:23 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602012020.OAA20411@tapr.org>
Rendered body type: text/plain

JOn,

HOw are you trying to access the system ?

Are you getting a busy reply or something else ?

ftp.tapr.org should be working fine. If that does not work correctly, then
you might want to try the IP address by it self and test that: 206.210.220.85

Cheers - Greg

>
>
> ------ =_NextPart_000_01BAF07D.3BCA4580
> Content-Type: text/plain; charset="us-ascii"
> Content-Transfer-Encoding: quoted-printable
>
> Gwyn,
>
> Have you tried to access the FTP area at the TAPR site? I have not been =
> able to access it for nearly a month when I found out there was new code =
> around... what could be the problem?=20
>

> 73 de Jon
> WA2YVL - FN30rx
> NNNN
>
> ----------
> From: Gwyn Reedy, W1BEL[SMTP:gwyn@paccomm.com]
> Sent: Thursday, February 01, 1996 12:50 AM
> To: dsp-93@tapr.org
> Subject: [DSP-93:1922] Re: Paccomm Firmware
>
> On Wed, 31 Jan 1996, Jon wrote:
>
> >=20
> > Howdy folks...
> >=20
> > Can anyone tell me where I can get the new images for the Paccomm 93 =
> TNC firmware...
> >=20
> > I have the older code that does not support pass... I have searched hi =
> and low with no joy...=20
> >=20
> > 73 de Jon
> > WA2YVL - FN30rx
> > NNNN
>
> Look in the directory tapr\dsp93\upload on the TAPR ftp server. There =
> are=20
> three EPROM images for the TNC. Only the most recent one has the=20
> passthrough.=20
>
> A new image should be uploaded soon (after the weekend?) which has =
> larger=20
> buffers to reduce overruns from the DSP to the TNC that were reported by =
>
> Ron, W5RKN. The image also will have at least a partial KISS=20
> implementation. The porting has nearly been completed, but there remains =
>
> a problem with KISS transmit. All the 'commands' and the receive =
> function=20
> work just fine.=20
>
> I'm hoping the transmit problem can be resolved over the weekend. Either =
>
> way, I'll upload a new image after returning from the Miami Hamfest this =
>
> weekend.
>
> 73, Gwyn
> _ =
> _
> Gwyn Reedy, W1BEL   gwyn@paccomm.com   W1BEL@amsat.org
>
> PacComm Packet Radio Systems, Inc.   +(813) 874-2980 Fax:+(813) =
> 872-8696
> 4413 N. Hesperides St.   BBS: +(813) 874-3078 (V.34)
> Tampa, FL 33614-7618 USA   info@paccomm.com =
> http://www.paccomm.com
>
>
>
>
> ------ =_NextPart_000_01BAF07D.3BCA4580
> Content-Type: application/ms-tnef
> Content-Transfer-Encoding: base64
>
> eJ8+IjkNAQaQCAAEAAAAAAABAAEAAQeQBgAIAAAA5AQAAAAAAADoAAENgAQAAgAAAAIAAgABBJAG
> AAgBAAABAAAADAAAAAMAADADAAAACwAPDgAAAAACAf8PAQAAAD0AAAAAAAAAgSsfpL6jEBmdbgDd
> AQ9UAgAAAABkc3AtOTNAdGFwci5vcmcAU01UUABkc3AtOTNAdGFwci5vcmcAAAAAHgACMAEAAAAF
> AAAAU01UUAAAAAAeAAMwAQAAABAAAABkc3AtOTNAdGFwci5vcmcAAwAVDAEAAAADAP4PBgAAAB4A
> ATABAAAAEgAAACdkc3AtOTNAdGFwci5vcmcnAAAAAgELMAEAAAAVAAAAU01UUDpEU1AtOTNAVEFQ
> Ui5PUkcAAAAAAwAAOQAAAAALAEA6AQAAAAIB9g8BAAAABAAAAAAAAAAMRKQEIgAcAGAAAAElQTS5N
> aWNyb3NvZnQgTWFpbC5Ob3RlADEIAQSAAQAnAAAAUkU6IFtEU1AtOTM6MTkyMl0gUmU6IFBhY2Nv
> bW0gRmlybXdhcmUAfwsBBYADAA4AAADMBwIAAQAIAAsAGwAEAAgBASCAAwAOAAAAzAcCAAEACAAH
> ADEABAAaAQEJgAEAIQAAADRFQTYxNjlBNkQ1Q0NGMTFCRTlCMDAyMEFGRDIwOEI5AFIHAQOQBgBI
> BwAAEgAAAAsAIwAAAAAAAAwAmAAAAAAAALACkAAAAAAAMANgAAAAAAQAA5AECwWcum8LoBHgBwAAEA
> AAAnAAAAUkU6IFtEU1AtOTM6MTkyMl0gUmU6IFBhY2NvbW0gRmlybXdhcmUAAAIBcQABAAAAFgAA
> AAG68KbII5oWpk9cbRHPvpsAIK/SCLkAAB4AHgwBAAAABQAAAFNNVFAAAAAAHgAfDAEAAAAUAAAA
> amFuZHJld3NAaS0yMDAwLmNvbQADAAYQTSmuaQMABxDqBAAAHgAIEAEAAABlAAAAR1dZTixIQVZF
> WU9VVFJJRURUT0FDQ0VTU1RIRUZUUEFSRUFBVFRIRVRBUFJTSVRFP0lIQVZFTk9UQkVFTkFCTEVU

```
> T0FDQ0VTU0lURk9STkVBUkxZQU1PTlRIV0hFTklGT1VORAAAAAACAQkQAQAAAL4FAAC6BQAAOwoA
> AExaRnXkPWXd/wAKAQ8CFQKoBesCgwBQAvIJAgBjaArAc2V0MjcGAAbDAoMyA8UCAHByQnER4nN0
> ZW0CgzN3AuQHEwKAfQqACM8J2TvxFg8yNTUCgAqBDbELYOBuZzEwMxRQCwoUUQUL8mMAQCBHd3lu
> BiwKhQqFSGF2ZSBSeQhgIHQIgWQcoG+aIADQYweQBCB0aBxQ2EZUUB0wFhBhHTAFQMEdslRBUFIg
> AJAT0GA/ICBJIBGAHEFu+m8FQGIJ4R0wAmAcUB0YLR9QIAIQBcBuHlBybBp5HTAgBGACMGggd88d
> wAOgH7ACEHVuHPAIYPcekxYQIvBhBCAiEAfgBaD3DbAeISOCLiWgIvEegQWgvHVsHPAgYB2jE1Bv
> IMFGbR+AG0w3MyAlEUoDAiAKhVdBMllWTAQgLR3gTjMwcngdCoVOKtEbTAr0bGkxBDgwAtFpLTE0
> NM8N8AzQLPMLWTE2CqADYPUT0GMFQC0vFwqHLcsMMPUulkYDYTowHi6WDIIa4yMH8AngZHksKWAx
> QiBFTFtTTR4AOmedGwFACrAdUANwbS41wX5dL78wzQZgAjAx/zMLVCJoCHBzZGE0YUZlmGJydQrA
> ImAwMTRwEDE5OTY70DI6NZowFLBNNl8wzVRvOJ8BMwtkc3AtOTNAawGQE1AuBbBnPL83bnUcYmou
> 0T7fMwtbRFOKUEDhOjvgMjJdNBGNRBBQNaQd4GlybSRw5xYQKx8sIzM2LZcaRS6WWk8DoFcJgDRw
> MxrQSr8DkTviNHAo0SLwLqI6G0xiPk1oSG93NFAhwWzMa3MloU1/IEMDkQBw5xxwIhAcoGVsAyAH
> gCLy6yRBH7BjA5FnEcAdoySy/QdwYVKABCAh0h2yRxZA8Pke4E5DIcBHpU9PTcIftT8dsgbwBIEk
> 5B2wHoFkb8MHkSAic3VwcBWxJvB/JIBPMh+mEbAKwBFwHOFo/mlQwRzwFaAH4APwItEgIPAgam95
> JaJV3yhvTeAHKX9NlSrfIExvb2v3IZADoB2yZEegLtEFsCJg/UEiXA2gQMBA8GNQWUAVoF5hI7Fi
> FB7zAYBwWpFy/xxAQVA6YSQyHjEbph2wCdHkIEUfEE9NUz5U4SXA30sQIlEdsgRgE8AgYpE4Yf9k
> QRxQEYAdlAqFWbJm4QhgbGdoXLcKhUFS+B8waDcmRmPkHOFzYcADoChhVwGAV9EdsncJ4GsJ8GT0
> Pyki8WkRcGpjC2BBgPNX0QqFYnUN0ASQHZEdIP0WEXUdYCPAZYE7QAYxA1L/HaNGAR0CaFVYRHAA
> JEEWEPtZYhzhYiJgCoUIABsgXwDwNVJLTmWzbWUHQG8A/1vRUWEf0x6BINAkgAVAHmCFCrF0BzEg
> S0lTBfC/CoUHcAtQE+A4YR6AaQIg93fEWWILgGdqYyIVIGM1wf97gXZBNHByICP2FhAAwAuA/wQg
> CoV6AScUW9R6oxywAHG2bR9QJcBBUWEdsic1wrlbYXMnW1MdsmnCaRxB3mYjkC7gfBEbpncFsGHg
> PGp1aZEswCIQbB5JJ/tHcG3gcHziHbKBpoB3UkL3JpEWEG8AbBxAI7FlgW+6/SXARVvxcYgkcDRh
> h1BRYd9j5R5gbThvZBYQdAhwAwC7fPFz100HMIHwHBFtclD/aZEdsAQAhPeK9SeeNHAa8v0KhV+T
> n5Svlb+Wz5cSCoW/M98fkJm4NU6ZuTSTQI/Q/nMegEFpCoVHEQhQR2FHEbtwMAVAUmQgfBATlXOM
> gQeEkCXAmbErKDgxM4FwgDg3NC0yOSyAIR+QRmF4OqBXMi38ODY8AAqFLQCggAewJcD6SAeQcAZx
> DbAGQYIRpGw4QkJTRBCgWSogNzhBb0BWLjM0KQqFVF+P0AqwOvFfYBlQNizwLeY3qDCmgFVTbRCZ
> twuACwIQmrxoAkBwOi8v+nerIC41mRtMSB9JL0o8CwqFFTEAsKAAAAMAEBAAAAAAAAwAREAAAAABA
> AAcwYL5YSabwugFAAAgwYL5YSabwugEeAD0AAQAAAAUAAABSRTogAAAAAP9T
>
> ------ =_NextPart_000_01BAF07D.3BCA4580--
>
>
```

7. A FAQ is needed

```
From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Fri, 2 Feb 1996 10:17:14 -0600
To: dsp-93@tapr.org
Message-ID: <v02130502ad37e8e39786@[204.181.160.71]>
Rendered body type: text/plain
```

I received a very good set of questions from a prospective DSP-93 owner. It appears that a FAQ is in order. Why doesn't someone take the ball and run with it. The Q&A follow.

==========

```
>
>1 - Are the mods to the FT-736R (change one filter, remove a .01uF cap etc.)
>    adequate for 9600 FSK operation or are addition mods required for use
>    with the DSP-93?
```

Those mods are fine. See the Operations Manual (DSP93_Ops_Manual.pdf in the TAPR ftp site) for more specific info.

ftp://ftp.tapr.org/tapr/dsp93/manuals/DSP93_Ops_Manual.pdf

While you are there, get ALL the manuals.

```
>2 - Is there special software required or will WISP work?
```

Wisp works fine. Totally automatic operation can be done depending on your TNC and the number of serial ports you have available.

```
>3 - Will the DSP-93 demodulate the AO-13 telemetry?  If so, will P3C.EXE
>    work in decoding the data or do I need some other software?
```

Yes, and yes, P3C works fine. Check the readme files. I have appended an old (June '95) software list below.

```
>4 - I've heard and I'm not sure about this that there is a slight difference
>    between UO-22, KO-23 and KO-25 in there modulation schemes and DSP type
>    units having rigid filters sometimes have reduced through-put when
>    compared to non-DSP units.  I this true?
```

The advantage of the DSP modems is that the filters are just software. If you want a different one, just change the software. I and others have played with many different filters. The best depends on the signal strength

and your radio. But changing filters is EASY! It can be done without
re-assembling the modem.

>5 - Does the design of the hardware/software allow flexibility for future
>   modes and technologies?

Oh, yes. The DSP-93 comes with the complete software development kit and
MUCH sample software. Almost all software comes both with source and object
files.

>6 - If for example I find a filters bandwidth to narrow, are there
>   provisions available to the user in modifying this or is this discouraged
>   by TAPR?

See above. Software experimentation is encouraged. And we all stand by to help.

>7 - I read on the AMSAT-BB that the AEA-2232, the PacComm NB-96/PSK-1 and the
>   DSP-93 were pitted against each other and the DSP-93 faired quite well.
>   Are you aware of these tests and do you concur with them?
>   (No bias please hihi)

Yes, I have seen the test results. I have a DSP-2232 but not the other. I
played with digitally captured data (CD quality) and compared the DSP-93
and the DSP-2232. In most cases, I was able to find a filter (depending on
signal strength) that made the DSP-93 better than the FIXED DSP-2232. UO-22
was the exception. Its modulation is strange and I didn't spend too much
time with it. In any case. the DSP-93 was no more that 5% worse than the
DSP-2232 for UO-22. I'm sure that if I had spent more time, I could have
done better. See, there are still software projects that need working on.
Come join us.

DSP-93 Software, June 95

9600 bps Modems

FSK93U1/2	Half or full duplex operation, active DCD	WB5IPM/W5RKN/W0SL
FSK93U1/2B	Weak signal optimized FSK93U1/2	WB5IPM/W5RKN/W0SL
FSK93K1/2	ISI comp. for KO-23/25, active DCD	WB5IPM/W5RKN/W0SL
TPRS931/2	TPRS with NRZI in/out, active DCD	WB5IPM

1200 bps Modems

PKT931/2	Standard AFSK, active DCD	WB5IPM
PSK93R1/2J	Satellite PSK, active DCD, SmartTune	WB5IPM
PSK93R1/2Y	Sat. PSK, active DCD, SmartTune, YAESU	WB5IPM

HF Modems

HOT_HF93	RTTY modem, Viterbi soft detection	W3HCF
HF_93HT1/2	300 bps FSK, active DCD, adpt. threshold	WB5IPM
HF_93U1/2	AMTOR using TOR.EXE, adpt. threshold	WB5IPM

Sat. Pic/Telem

APT_93HX1/2	Carrier-sync. pixels eliminate doppler bow	WB5IPM
P3C93T1/2	AO-13 400 bps telemetry, P3C.EXE comp.	WB5IPM

Noise Processing

W9GR_93	Adpt. carrier null, channel enh., BP filters	N4IIR/K9GKC/W9GR
CW93_D	CW filter	WB5IPM

Instrumentation

D93WE series	Loader, audio o'scope and spectrum analyz'r	N5EG(PC)/W5RKN(Mac)

Diagnostics

Monitor	Basic DSP-93 Monitor and SW utilities	N5BRG
DSP-93 tests	Check-out of all DSP-93 functions	WB5PKJ/N5EG/W5RKN

Ron W5RKN

also:
rparsons@bga.com

8. LoadThis (serial dump utility) posted

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Fri, 02 Feb 1996 21:21:31 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960202212131.00684d4c@camel.campbell.edu>
Rendered body type: text/plain

Hi Frank and All,

I have uploaded a file to the anonymous server (ftp.tapr.org)

~tapr/dsp93/util/loadthis.zip

that contains a short text file describing the utility called LoadThis.exe,
and the executable. Unfortunately, I don't have the source code for this,
but I did get an OK from the author (my elmer, Gene-KC4SA) to upload the
utility for distribution .

The utility was written to satisfy our desire for a program that simply
shoots the indicated text file to the indicated port at the indicated baud
(when you indicate, hi!).

It may be used to shoot text files that contain a single "r" character
(without the quotes) to the DSP-93 for resetting the unit, for example. I
have also used it to shoot commands to my Kenwood TS-790A through the serial
radio port. Its application is quite flexible. If you can create a text
file that you wish to pass to a serial port, now you can send it! Download
it and read the loadthis.txt file for more details and the syntax to operate
the program.

Hope you get as much good out of it as I have! Many thanks go to Gene, KC4SA.

Mark L. Hammond   [KC4EBR]

9. Paccomm eprom images moved!

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Fri, 02 Feb 1996 21:27:44 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960202212744.006845f8@camel.campbell.edu>
Rendered body type: text/plain

Hi All,

I have created a new subdirectory at ftp.tapr.org anonymous ftp site so that
we may locate the eprom image files for the "Paccomm TNC for TAPR/AMSAT
DSP-93" in an easy-to-find location. Look for these eprom images under:

~tapr/dsp93/Paccomm_eproms

I will move new images there as Gwyn posts them for us under the upload
subdirectory.

In order to clarify things even more, I have renamed the subdirectory that
contains eprom images for the two DSP-93 eproms to:

~tapr/dsp93/dsp93_eproms

(Sorry I didn't do this earlier) Hope this helps you all find these easier.

Mark L. Hammond   [KC4EBR]

10. APT preliminary report

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Fri, 02 Feb 1996 23:07:58 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960202230758.0070c05c@camel.campbell.edu>
Rendered body type: text/plain

Hi Frank!

At 21:25 1/31/96 -0600, you wrote:
>Hi Mark,
>
>Could you pass along copy of the "dump a text file to the com port" SW
>to me (including source if possible)?
>

See the earlier message posted today...it's on the ftp site.

>
>73 Frank WB5IPM
>
>PS - How is the APT test going?

The APT was fairly successful. I was basically trying to see what my dinky new Icom IC-706 could do with the 137MHz WX birds. I found that the Wide FM gives good range of shades (all the way from white to black), while the regular FM mode looses a few (maybe three or so) of the shades at the white end.

The limiting issue at my QTH is that the WIDE FM requires SOOOOOO much more signal--my lack of 2M preamp is showing. On a good strong signal, the pictures are pretty good (nothing compared to what I recall your AO-21 Apollo 13 pic looked like, though!). The narrow FM gives nice pics if the cloud cover is not too much (lots of dark shades is good), and it doesn't take nearly as much signal to get a picture.

So, the APT code is dandy, and once again you are to be patted on the back for making the DSP-93 much more than just a "stupid box."   Thanks!

Mark L. Hammond   [KC4EBR]

11. RE: [DSP-93:1924] Re: Paccomm Firmware

From: Jon <jandrews@i-2000.com>
Date: Fri, 2 Feb 1996 22:42:18 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF1C2.B7EFB780@riverhead4.access1.dh.i-2000.net>
Rendered body type: text/plain

Om's

I have tried a direct FTP as well as via the Web site... no joy... my browser says it cannot connect... I am at a loss... I am using Windows 95 Net Explorer ver 2.0 and have had no joy... I ftp and downland files all the time and for the life of me can't figger out why it doesn't work...

Gywn,

I have looked on your web site and your BBS. I gather they are not there either... unless I'm really stupid... which is possible... My DSP-93 is pretty useless with out the TNC interface so I'd sorta like to get the images to burn....

Thanks for all your help fellas...

73 de Jon
WA2YVL - FN30rx

From: Ronald G. Parsons[SMTP:w5rkn@amsat.org]
Sent: Thursday, February 01, 1996 6:17 AM
To: dsp-93@tapr.org
Subject: [DSP-93:1924] Re: Paccomm Firmware

>------ =_NextPart_000_01BAF07D.3BCA4580
>Content-Type: text/plain; charset="us-ascii"
>Content-Transfer-Encoding: quoted-printable
>
>Gwyn,
>
>Have you tried to access the FTP area at the TAPR site? I have not been =
>able to access it for nearly a month when I found out there was new code =
>around... what could be the problem?=20
>
>73 de Jon
>WA2YVL - FN30rx
>NNNN
>

Your note was a bit messy - looks like a MicroSoft problem

The TAPR site has been having some problems. Try connecting to the ftp site through the Web page (http://www.tapr.org/tapr/). I can often get through that way when the ftp lines are busy.

But I have accessed it many times in tha last month.

Ron W5RKN

also:
rparsons@bga.com

12. Re: [DSP-93:1931] APT preliminary report

From: fperkins@onramp.net
Date: Fri, 2 Feb 1996 22:20:52 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602030420.WAA05319@mailhost.onramp.net>
Rendered body type: text/plain

Hi Mark,

Thanks for the report. You will find Spring a very interesting time
for APT pictures ... watch Hudson Bay thaw etc. Also, as the Sun moves
back North of the Equator visible light images get a lot better.

73 Frank WB5IPM

13. Re: [DSP-93:1932] Re: Paccomm Firmware

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sat, 3 Feb 1996 08:05:48 -0600
To: dsp-93@tapr.org
Message-ID: <v02130500ad391b719dec@[204.96.0.39]>
Rendered body type: text/plain

>------ =_NextPart_000_01BAF1C2.B7F758A0
>Content-Type: text/plain; charset="us-ascii"
>Content-Transfer-Encoding: quoted-printable
>
>Om's
>
>I have tried a direct FTP as well as via the Web site... no joy... my =
>browser says it cannot connect... I am at a loss... I am using Windows =
>95 Net Explorer ver 2.0 and have had no joy... I ftp and downland files =
>all the time and for the life of me can't figger out why it doesn't =
>work...=20

I hope you can clean up that MicroSoft junk on your messages.

Let's make sure you are using the correct URLs

http://www.tapr.org/tapr/   is the Web page and the ftp site can be reached
through there via the Special Interest Groups.

ftp://ftp.tapr.org/tapr/dsp93/

Tried it just now and got immediate access.

Ron W5RKN

also:
rparsons@bga.com

14. RE: [DSP-93:1932] Re: Paccomm Firmware

From: Ron Curry <recurry@insighttec.com>
Date: Sat, 3 Feb 1996 09:01:12 -0800
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <01BAF216.2B9B24A0@expressp5.insighttec.com>
Rendered body type: text/plain

Jon,
TAPR is frequently busy as it allows only a small number of ftp users at a
time. It might help if you told us the error you are receiving. By the way,
you might want to go into you "Internet" profile under the "Mail and Fax"
section of the Control Panel and turn off MIME formating. That's why your
messages have all the equal signs etc.

Ron

From: Jon[SMTP:jandrews@i-2000.com]
Sent: Friday, February 02, 1996 2:14 PM

To: dsp-93@tapr.org
Subject: [DSP-93:1932] Re: Paccomm Firmware

------ =_NextPart_000_01BAF1C2.B7F758A0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: quoted-printable

Om's

I have tried a direct FTP as well as via the Web site... no joy... my =
browser says it cannot connect... I am at a loss... I am using Windows =
95 Net Explorer ver 2.0 and have had no joy... I ftp and downland files =
all the time and for the life of me can't figger out why it doesn't =
work...=20

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there either... unless I'm really stupid... which is possible... My =
DSP-93 is pretty useless with out the TNC interface so I'd sorta like to =
get the images to burn....

Thanks for all your help fellas...

73 de Jon
WA2YVL - FN30rx

From: Ronald G. Parsons[SMTP:w5rkn@amsat.org]
Sent: Thursday, February 01, 1996 6:17 AM
To: dsp-93@tapr.org
Subject: [DSP-93:1924] Re: Paccomm Firmware

>------ =3D_NextPart_000_01BAF07D.3BCA4580
>Content-Type: text/plain; charset=3D"us-ascii"
>Content-Transfer-Encoding: quoted-printable
>
>Gwyn,
>
>Have you tried to access the FTP area at the TAPR site? I have not =
been =3D
>able to access it for nearly a month when I found out there was new =
code =3D
>around... what could be the problem?=3D20
>
>73 de Jon
>WA2YVL - FN30rx
>NNNN
>

Your note was a bit messy - looks like a MicroSoft problem

The TAPR site has been having some problems. Try connecting to the ftp =
site
through the Web page (http://www.tapr.org/tapr/). I can often get =
through
that way when the ftp lines are busy.

But I have accessed it many times in tha last month.

Ron W5RKN

also:
rparsons@bga.com

------ =_NextPart_000_01BAF1C2.B7F758A0
Content-Type: application/ms-tnef
Content-Transfer-Encoding: base64

eJ8+IjMEAQaQCAAEAAAAAAABAAEAAQeQBgAIAAAA5AQAAAAAAADoAAENgAQAAgAAAAIAAgAB
BJAG
AAgBAAABAAAADAAAAAMAADADAAAACwAPDgAAAAACAf8PAQAAAD0AAAAAAAAAgSsfpL6jEBmd
bgDd

```
AQ9UAgAAAABkc3AtOTNAdGFwci5vcmcAU01UUABkc3AtOTNAdGFwci5vcmcAAAAAHgACMAEA
AAAF
AAAAU01UUAAAAAAeAAMwAQAAABAAAABkc3AtOTNAdGFwci5vcmcAAwAVDAEAAAADAP4PBgAA
AB4A
ATABAAAAEgAAACdkc3AtOTNAdGFwci5vcmcnAAAAAgELMAEAAAAVAAAAU01UUDpEU1AtOTNA
VEFQ
Ui5PUkcAAAAAAwAAOQAAAAALAEA6AQAAAAIB9g8BAAAABAAAAAAAAAAMRKQEIgAcAGAAAAElQ
TS5N
aWNyb3NvZnQgTWFpbC5Ob3RlADEIAQSAAQAnAAAAUkU6IFtEU1AtOTM6MTkyNF0gUmU6IFBh
Y2Nv
bW0gRmlybXdhcmUAgQsBBYADAA4AAADMBwIAAgAWACoAEgAFAC4BASCAAwAOAAAAzAcCAAIA
FgAj
ACEABQA2AQEJgAEAIQAAAEMyN0I0MjFEOEE1RENGMTFCRTlCMDAyMEFGRDIwOEI5AEoHAQOQ
BgAI
BwAAEgAAAAsAIwAAAAAAAwAmAAAAAAALACkAAAAAAAMANgAAAAAQAA5AIB30p3p8boBHgBw
AAEA
AAAnAAAAUkU6IFtEU1AtOTM6MTkyNF0gUmU6IFBhY2NvbW0gRmlybXdhcmUAAAIBcQABAAAA
FgAA
AAG68emd0h1Ce8NdihHPvpsAIK/SCLkAAB4AHgwBAAAABQAAAFNNVFAAAAAAHgAfDAEAAAAU
AAAA
amFuZHJld3NAaS0yMDAwLmNvbQADAAYQhc4+LQMABxBtBAAAHgAIEAEAAAABlAAAAT01TSUhB
VkVU
UklFREFESVJFQ1RGVFBBU1dFTExBU1ZJQVRIRVdFQlNJVEVOT0pPWU1ZQlJPV1NFUlNBWVNJ
VENB
Tk5PVENPTk5FQ1RJQU1BVEFMT1NTSUFNVVNJTkdXSU5ETwAAAAACAQkQAQAAAH0FAAB5BQAA
VwkA
AExaRnXpLBd+/wAKAQ8CFQKoBesCgwBQAvIJAgBjaArAc2V0MjcGAAbDAoMyA8UCAHByQnER
4nN0
ZW0CgzP3AuQHEwKDNANFEzUHbQKALn0KgAjPCdk7GD8yNR41AoAKgQ2xC2BuZzG8MDMUUAsK
FFEL
8mMAQGAgT20ncwqFCoVJQiARgHZlIHQIgWSgIGEgZGkYQGMFQBhGVFAfAAQgd2VsWwMgH+F2
BzAe
oGgekFdYZWIgAJAT0C4hkCBAbm8gam95IZJtaHkgYgNgdxGwBcBzymETsCAhYCBjAHAh0Dsj
gQIg
bh9hIZIeQGFtvx8ABUAfEBfQBBAkh3UAkBcbQCEAC4BkIsEgOTXzB7EFQEV4C1AFsCLxHoDx
BcAy
LjAfACawHlQRgG8e8CHYHkABgHAogybBbvsbIR7wZgMQB5EHQAMgINK+dAdxKIMCEAXAINJs
BpC5
HpBvZiJgHpAjoScFQDkrMGdnIvEIYAVAd2hfIoAjcSbAB5At8ncFsGvTIZIdbEd5KsAsHW8e
cpkX
0G9rHuECICB5CGGPIAEhNCiDM3NCQlMhsP0eMWclECDgLMMigArAHpB3I9I1gh6QZSFgNZEh
knXn
KtAHkAQgSSck8BhAK5HDIoATwHVwaWQhki7grmkRcCNgBCBwJXFpAmAFIYNNIoBEU1AtOf4z
ObMY
QAJAIoAmMCAgN9KPA/Ag0C6TINJUTkMjYNsCMASQZgDQHpBzIeA4EO8e8D4gACAlQWkzAB6g
IeB3
LmA85AdwYS5gBCA/QWJVCHBuIZEuMYxUEYBuvmsEICyiK5IzcyDgbCpAby1AIDAf4EDvNzsw
DbAg
BkoCIAqFV0EyWVYITCAtH5BOMzByjngxjAr0LSAxODAC0eBpLTE0NA3wDNBIw3kLWTE2CqAD
YBPQ
H3EtX0rnCodJmwwwSmZGA2E6b0vuSmYMggfxbgdAHvBHDSGwUBGRAiBzW1NNkR+wOnc1L/Bu
QCTg
5yMgJHAFsGddS49MnQZgnwIwTc9O20HwCHBzZCMwZiwfkCEgcnUKwCKAMAIxVrAxOTk2IDZo
OjE3
FLBNUh9MnVRGb1RfTttkc3A7EUAfAZATUFHCWG9TLnViajcfYVqPTttbOuRYADkytDRdB/Bl
X8BQ
QGMFoMptJPBGH0BtdzYhRu+5R/MzNklnHHVKZj5K5EggPV8HwHh0UEF0Cl9IYDBn4DFCQUYA
MDdE
LjNCQ0HsNDVIUAqFPghQPZECMHAtVHlwYpET0GeAL00LUzsjkBGEPSImMC2hH+BjaWkiaU9y
AHHh
LUByLUVuBaAfMBtAyV/AcXVKgWQtE1A9gY8BoCtQbIZshkd3eTFn/XAnSB5yM3EepT9BYtE3
0h8g
0h+jOFElAj0DQVBS3SFDPzUiHmMj0mIJ4Wcw/2yGb3Jy6SNxLKIkQArAOJH/HxAEYAIwOaAu
4HZh
KgEIYP8ooTzFNjFjgAQgJEAH4G4xfx6QdpgDYHoBOSQlEQWgdR9P4XZAIMNKYTpBbT89twHQ
b75E
/j5F/2lkToIxe2+9CoVZM4Ij0XrEHxBi+yNxB4FzIoBGYDLSBCA+8+0fEE05gANgUy1wBUB+
Bf9B
HnS5HlEEIHZDHmEmUj4g/ywxfgUlkBZAVzEkFSZSP0G/INIqIiFSCoUg0HxRZzmgRyDWCrAu
YCAo
aAJAcFA6Ly93j0AuXNYv+VzSLykkoiOhLWFp8T9l/42TjQclEWOAIoB5c4xGLSC/JEArcTYx
QJCF
QEENQi6x/x5FcyQe4YTiAHAigCwSI1H/kzIlQR/ghPF5IkENCoVPofEhADVSS4JmCoUHQD4g
mjoK
hXIKsVByQGI1YP4uYvGY754PZJ9lrx3GF2ECAKJgAAAAAwAQEAAAAAADABEQAAAAAEAABzCA
44qs
6PG6AUAACDCA44qs6PG6AR4APQABAAAABQAAAFJFOiAAAAAAmCo=

------ =_NextPart_000_01BAF1C2.B7F758A0--
```

15. RE: [DSP-93:1934] Re: Paccomm Firmware

```
From: Ron Curry <recurry@insighttec.com>
Date: Sat, 3 Feb 1996 09:04:58 -0800
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <01BAF216.B2391E40@expressp5.insighttec.com>
Rendered body type: text/plain
```

Ron,
I'm not defending microsoft but it's not "microsoft junk". It turns out the microsoft mail program supports the latest rev of MIME encoding while many of the older mail programs do not - in fact the offending problem is your mail program not the microsoft's but Jon can turn it off so as not to offend users of obsolete software.

Ron Curry

From: Ronald G. Parsons[SMTP:w5rkn@amsat.org]
Sent: Saturday, February 03, 1996 12:20 AM
To: dsp-93@tapr.org
Subject: [DSP-93:1934] Re: Paccomm Firmware

>------ =_NextPart_000_01BAF1C2.B7F758A0
>Content-Type: text/plain; charset="us-ascii"
>Content-Transfer-Encoding: quoted-printable
>
>Om's
>
>I have tried a direct FTP as well as via the Web site... no joy... my =
>browser says it cannot connect... I am at a loss... I am using Windows =
>95 Net Explorer ver 2.0 and have had no joy... I ftp and downland files =
>all the time and for the life of me can't figger out why it doesn't =
>work...=20

I hope you can clean up that MicroSoft junk on your messages.

Let's make sure you are using the correct URLs

http://www.tapr.org/tapr/ is the Web page and the ftp site can be reached through there via the Special Interest Groups.

ftp://ftp.tapr.org/tapr/dsp93/

Tried it just now and got immediate access.

Ron W5RKN

also:
rparsons@bga.com

16. apt source

```
From: Ron Curry <recurry@insighttec.com>
Date: Sat, 3 Feb 1996 09:22:20 -0800
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF219.1F5CF580@expressp5.insighttec.com>
Rendered body type: text/plain
```

Is this source available? It doesn't seem to be available on the ftp site.

73's Ron Curry

17. Re: [DSP-93:1937] apt source

```
From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sat, 03 Feb 1996 20:22:43 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960203202243.0068d9f0@camel.campbell.edu>
Rendered body type: text/plain
```

Hi Ron,

The APT source has not been released.

At 11:31 2/3/96 -0600, you wrote:
>Is this source available? It doesn't seem to be available on the ftp site.
>
>73's Ron Curry

Mark L. Hammond [KC4EBR]

18. Re: [DSP-93:1932] Re: Paccomm Firmware

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sat, 03 Feb 1996 20:25:22 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960203202522.00700898@camel.campbell.edu>
Rendered body type: text/plain

Hi Jon,

If you can handle a MIME encoded file, I can send you file as a Eudora attachment. There is more than one way to skin a cat....

Let me know if you still need the eprom images and you want them through this route of delivery.

>Om's
>
>I have tried a direct FTP as well as via the Web site... no joy... my =
>browser says it cannot connect... I am at a loss... I am using Windows =
>95 Net Explorer ver 2.0 and have had no joy... I ftp and downland files =
>all the time and for the life of me can't figger out why it doesn't =
>work...=20
>
>

Mark L. Hammond [KC4EBR]

19. RE: [DSP-93:1938] Re: apt source

From: Ron Curry <recurry@insighttec.com>
Date: Sat, 3 Feb 1996 13:58:20 -0800
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF23F.ADC8F640@expressp5.insighttec.com>
Rendered body type: text/plain

Mark,
That's too bad. I wanted to get it running on a TI c5x DSK - a much lower cost unit with more processing power than the dsp-93. Could save me a lot of time. These can be had for $99 from TI and $50 regularly on the net. Are you the author? Do you know anyone with a used DSP-93 are an unbuilt kit? I believe TAPR's next build is a ways off.

Thx,
Ron

From: Mark L. Hammond[SMTP:hammond@camel.campbell.edu]
Sent: Saturday, February 03, 1996 6:38 AM
To: dsp-93@tapr.org
Subject: [DSP-93:1938] Re: apt source

Hi Ron,

The APT source has not been released.

At 11:31 2/3/96 -0600, you wrote:
>Is this source available? It doesn't seem to be available on the ftp site.
>
>73's Ron Curry

Mark L. Hammond [KC4EBR]


```
begin 600 WINMAIL.DAT
M>)\^(A45`0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
M`0```#T``````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
```

```
M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"``,`#0`V
M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
M,4$X`#,``0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR
M$<^\_ "J`"]1J ``'@`># $````%````4TU44 `````>`!\,`0```!<```!R
M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@```@`($ $`
M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
M1U!/5T525$A!3E1(14134 `````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``!R
M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
M&[ 'D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
MV0K ;'D>4B+R;A' ')";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,\_
MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F( GP^2@!;&55$ F ') Q5@J%
M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
M"W +8 )@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
M`&> ``,`$! ``````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
5`#T``0````4```!213H@`````.UD
`
end
```

20. Re: [DSP-93:1940] Re: apt source

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sat, 03 Feb 1996 23:51:34 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960203235134.0070a7f8@camel.campbell.edu>
Rendered body type: text/plain

Ron,

Frank Perkins, WB5IPM, is the author. You might consult with him on this issue. He is on this list, by the way. Frank wrote a BUNCH of the code that is available for the DSP-93.

As for a used DSP-93, I have seen one or two go for sale on this list. If somebody has one for sale, perhaps they will contact you directly.

Yes, I have seen others mention that chip. I forget who, though...sorry.

(by the way, look at the "goodies" your mailer is apparently adding at the end of each message)

==========

At 16:01 2/3/96 -0600, you wrote:

>Mark,
>That's too bad. I wanted to get it running on a TI c5x DSK - a much lower
>cost unit with more processing power than the dsp-93. Could save me a lot
>of time. These can be had for $99 from TI and $50 regularly on the net. Are
>you the author? Do you know anyone with a used DSP-93 are an unbuilt kit? I
>believe TAPR's next build is a ways off.
>
>Thx,
>Ron
>
>----------
>From: Mark L. Hammond[SMTP:hammond@camel.campbell.edu]
>Sent: Saturday, February 03, 1996 6:38 AM
>To: dsp-93@tapr.org
>Subject: [DSP-93:1938] Re: apt source
>
>Hi Ron,
>
>The APT source has not been released.
>
>At 11:31 2/3/96 -0600, you wrote:
>>Is this source available? It doesn't seem to be available on the ftp site.
>>

>>73's Ron Curry
>
>
>Mark L. Hammond   [KC4EBR]
>
>
>
>
>begin 600 WINMAIL.DAT
>M>)\^(A45`0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
>M`@````(``@`!!) &``@!```!````# ````,``# #`````"P`/#@`````"`?\/
>M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
>M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
>M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
>M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5`````
>M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
>M````! `````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
>M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
>M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"```,`#0`V
>M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
>M,4$X`#,'`0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
>M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
>M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR
>M$<^_ "J`"]1J ``'@`># $````%````4TU44 `````>`!\,`0```!<```!R
>M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@```@`($ $`
>M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
>M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
>M1U!/5T525$A!3E1(14134 `````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
>M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``!R
>M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
>M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
>M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
>M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
>M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
>M&['D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
>MV0K ;'D>4B+R;A' ')";!Q A<`D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
>M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
>M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
>M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
>M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
>M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
>M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,_
>MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
>M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F(GP^2@!;&55$ F ') Q5@J%
>M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
>M"W +8)@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
>M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
>M`&> ``,`$! ``````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
>5`#T``0````4```!213H@`````.UD
>`
>end
>
>
>

Mark L. Hammond   [KC4EBR]

21. Re: [DSP-93:1940] Re: apt source

From: Greg Jones <wd5ivd@tapr.org>
Date: Sat, 3 Feb 1996 18:39:28 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602040039.SAA26100@tapr.org>
Rendered body type: text/plain

Next build will be around Dayton. The good news is that the TNC-95 should
be available about the same time.

Greg

>
> Mark,
> That's too bad. I wanted to get it running on a TI c5x DSK - a much lower
> cost unit with more processing power than the dsp-93. Could save me a lot
> of time. These can be had for $99 from TI and $50 regularly on the net. Are
> you the author? Do you know anyone with a used DSP-93 are an unbuilt kit? I
> believe TAPR's next build is a ways off.
>

> Thx,
> Ron
>
> ----------
> From: Mark L. Hammond[SMTP:hammond@camel.campbell.edu]
> Sent: Saturday, February 03, 1996 6:38 AM
> To: dsp-93@tapr.org
> Subject: [DSP-93:1938] Re: apt source
>
> Hi Ron,
>
> The APT source has not been released.
>
> At 11:31 2/3/96 -0600, you wrote:
> >Is this source available? It doesn't seem to be available on the ftp site.
> >
> >73's Ron Curry
>
>
> Mark L. Hammond   [KC4EBR]
>
>
>
>
> begin 600 WINMAIL.DAT
> M>)\^(A45`0:0" `$```````!``$``0>0!@`(```Y 0```````#H``$-@ 0`
> M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
> M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
> M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
> M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
> M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
> M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
> M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
> M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
> M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"``,`#0`V
> M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
> M,4$X`#,''0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
> M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
> M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR
> M$<^_ "J`"]1J ```@`># $````%````4TU44 `````>`!\,`0```!<```!R
> M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@```@`($ $`
> M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
> M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
> M1U!/5T525$A!3E1(14134 ``````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
> M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``!R
> M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
> M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
> M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
> M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
> M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
> M&['D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
> MV0K ;'D>4B+R;A' ')";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
> M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
> M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
> M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
> M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
> M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
> M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,_
> MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
> M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F(GP^2@!;&55$ F ') Q5@J%
> M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
> M"W +8)@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
> M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
> M`&> ``,`$! ``````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
> 5`#T``0````4```!213H@`````.UD
> `
> end
>
>

22. RE: [DSP-93:1934] Re: Paccomm Firmware

From: Jon <jandrews@i-2000.com>
Date: Sat, 3 Feb 1996 23:12:47 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF28D.5A050960@riverhead20.access1.dh.i-2000.net>
Rendered body type: text/plain

Hello all!

Thanks for all the help... I have discovered that my browser did not send the proper syntax... I changed top netscape and it worked but I got a "next time message" for the user name somehow my terminal is sending only a @ vs my name and address.... Not too sure how to fix that either... both browsers have trouble... The long and short of it is that I have the image for the EPROM... I'll wait to burn it until I get the updated version this weekend...

As for the "MicroSoft Bug" well... I saw that my mailer was using a ISO-xxx character set (which is the default) and I have changed to US-ASCII... maybe that will help... who knows...

Again thanks to all... ain't this computer stuff grand? I've bought a flat bed scanner from Mustek... I've had it 2 1/2 weeks and can't get it to play... it is SCSI (almost) Great Stuff! Tech support is scratching their heads too!

Have a nice day all!

73
de Jon WA2YVL
NNNN

From: Ronald G. Parsons[SMTP:w5rkn@amsat.org]
Sent: Saturday, February 03, 1996 12:04 PM
To: Jon
Subject: RE: [DSP-93:1934] Re: Paccomm Firmware

>Hi Ron,
>
>I really appreciate your help I am using the correct URL's and I cannot
>get any FTP operations to work on the TAPR site either by direct FTP or
>via the web page. I'm using Windows 95 and my browser is Microsoft
>Internet Explorer ver 2.0. I have downloaded gigabytes via FTP and web
>sites all around the world and I cannot for the life of me figure out why
>it doesn't work with TAPR.

That is indeed strange.

>The response from my browser:
>Via the web site: Could not open ftp://ftp.org/tapr/dsp93.

Perhaps you typed the address above wrong, but it is "ftp.tapr.org"

>Via direct FTP: Could not open ftp://ftp.tapr.org/tapr/dsp93/dsp93.info.
> or ftp://ftp.tapr.org/tapr/dsp93.
>
>I will try another browser and see what happens there.... I'll let you know.

Again, perhaps you mistyped the above, but /dsp93 is a directory. Perhaps your browser needs a trailing /

However ftp://ftp.tapr.org/tapr/dsp93/dsp93.info should have worked.

I'd sure dump that browser and try another

>As for the "Microsoft Problem" that is another problem that does not
>happen all the time and it really gets weird when I forward or reply to
>sender... seems that there may be some padding with control characters
>that my mailer creates as an attachment. Although it is not "visible" on
>my end it ends up at the other site... plus it does not happen all the
>time.... not sure how to proceed...

>From what I have seen on other mail lists, the "fix" is available from MicroSoft if you can fine someone in their tech support that understands what you are asking.

I could e-mail you the files if your mailer is MIME compatible.

Ron W5RKN

also:
rparsons@bga.com

23. Re: [DSP-93:1943] Re: Paccomm Firmware

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sun, 4 Feb 1996 07:45:40 -0600
To: dsp-93@tapr.org

Message-ID: <v02130500ad3a66de6cfb@[204.251.33.95]>
Rendered body type: text/plain

>Hello all!
>
>Thanks for all the help... I have discovered that my browser did not =
>send the proper syntax... I changed top netscape and it worked but I got =
>a "next time message" for the user name somehow my terminal is sending =
>only a @ vs my name and address.... Not too sure how to fix that =
>either... both browsers have trouble... The long and short of it is that =
>I have the image for the EPROM... I'll wait to burn it until I get the =
>updated version this weekend...

Make sure your Netscape Options are all set correctly for your e-mail
address. I believe it uses that for the anonymous login.

>As for the "MicroSoft Bug" well... I saw that my mailer was using a =
>ISO-xxx character set (which is the default) and I have changed to =
>US-ASCII... maybe that will help... who knows...=20

All looks good except for the line end character.

>Again thanks to all... ain't this computer stuff grand? I've bought a =
>flat bed scanner from Mustek... I've had it 2 1/2 weeks and can't get it =
>to play... it is SCSI (almost) Great Stuff! Tech support is scratching =
>their heads too!

Didn't you know that computers are God's means to make us waste our time?

>Have a nice day all!
>
>73
>de Jon WA2YVL
>NNNN

Ron W5RKN

also:
rparsons@bga.com

24. microsoft mailers

From: Doug Rorem <rorem@cherokee.eecs.uic.edu>
Date: Sun, 4 Feb 1996 16:06:32 -0600
To: dsp-93@tapr.org
Message-ID: <rorem-9601042206.AA00044471@cherokee.eecs.uic.edu>
Rendered body type: text/plain

While we're on the subject of Microsoft mailers... Does anyone know
why they frequently append stuff like this to email responses?? I think
it's encoding the original message somehow but it doesn't appear to be
in any MIME standard format, at least not one that our system can
decode. Is it possible to configure the mailer to turn this stuff
off?? Thanks.

------ =_NextPart_000_01BAF1C2.B7F758A0
Content-Type: application/ms-tnef
Content-Transfer-Encoding: base64

eJ8+IjMEAQaQCAAEAAAAAAABAAEAAQeQBgAIAAAA5AQAAAAAAADoAAENgAQAAgAAAAIAAgAB
BJAG
AAgBAAABAAAADAAAAAMAADADAAAACwAPDgAAAAACAf8PAQAAAD0AAAAAAAAAgSsfpL6jEBmd

---[many lines deleted]---

hXIKsVByQGI1YP4uYvGY754PZJ9lrx3GF2ECAKJgAAAAAwAQEAAAAAADABEQAAAAAEAABzCA
44qs
6PG6AUAACDCA44qs6PG6AR4APQABAAAABQAAAFJFOiAAAAAAmCo=

------ =_NextPart_000_01BAF1C2.B7F758A0--

--
Doug Rorem
University of Illinois at Chicago   (312)-996-5439 [voice]
EECS Department RM 1120   (312)-413-1065 [fax]
851 S. Morgan Street   (708)-996-2226 [pager]
Chicago, IL 60607-7053   rorem@uic.edu

25. RE: [DSP-93:1945] microsoft mailers

From: Jon <jandrews@i-2000.com>
Date: Sun, 4 Feb 1996 17:58:12 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF32A.72BBDB80@riverhead18.access1.dh.i-2000.net>
Rendered body type: text/plain

Doug,

For what it is worth the advice follows: (So far the advice seems to work)

>As for the "Microsoft Problem" that is another problem that does not
>happen all the time and it really gets weird when I forward or reply to
>sender... seems that there may be some padding with control characters
>that my mailer creates as an attachment. Although it is not "visible" on
>my end it ends up at the other site... plus it does not happen all the
>time.... not sure how to proceed...

>From what I have seen on other mail lists, the "fix" is available from
MicroSoft if you can fine someone in their tech support that understands
what you are asking.

I could e-mail you the files if your mailer is MIME compatible.

Ron Parsons

Ron,
I'm not defending microsoft but it's not "microsoft junk". It turns out the
microsoft mail program supports the latest rev of MIME encoding while many
of the older mail programs do not - in fact the offending problem is your
mail program not the microsoft's but Jon can turn it off so as not to
offend users of obsolete software.

Ron Curry

So there you have it!

There also seems to be a bug with the Microsoft Internet Explorer ver 2.0 with the TAPR FTP site. It appears that the log in name is not sent or sent properly.. NetScape ver 2.0 seems to work AOK if you configure the setup properly.

If anyone has an idea how to fix the MS Explorer let me know...

Have a nice day!

73
de Jon WA2YVL
NNNN

From: Doug Rorem[SMTP:rorem@cherokee.eecs.uic.edu]
Sent: Sunday, February 04, 1996 11:23 AM
To: dsp-93@tapr.org
Subject: [DSP-93:1945] microsoft mailers

While we're on the subject of Microsoft mailers... Does anyone know
why they frequently append stuff like this to email responses?? I think
it's encoding the original message somehow but it doesn't appear to be
in any MIME standard format, at least not one that our system can
decode. Is it possible to configure the mailer to turn this stuff
off?? Thanks.

------ =_NextPart_000_01BAF1C2.B7F758A0
Content-Type: application/ms-tnef
Content-Transfer-Encoding: base64

eJ8+IjMEAQaQCAAEAAAAAAABAAEAAQeQBgAIAAAA5AQAAAAAAADoAAENgAQAAgAAAAIAAgAB
BJAG
AAgBAAABAAAADAAAAAMAADADAAAACwAPDgAAAAACAf8PAQAAAD0AAAAAAAAAgSsfpL6jEBmd

---[many lines deleted]---

hXIKsVByQGI1YP4uYvGY754PZJ9lrx3GF2ECAKJgAAAAAwAQEAAAAAADABEQAAAAAEAABzCA
44qs
6PG6AUAACDCA44qs6PG6AR4APQABAAAABQAAAFJFOiAAAAAAmCo=

------ =_NextPart_000_01BAF1C2.B7F758A0--

--
Doug Rorem
University of Illinois at Chicago   (312)-996-5439 [voice]
EECS Department RM 1120   (312)-413-1065 [fax]

851 S. Morgan Street (708)-996-2226 [pager]
Chicago, IL 60607-7053 rorem@uic.edu

26. Re: [DSP-93:1946] RE: microsoft mailers

From: Greg Jones <wd5ivd@tapr.org>
Date: Sun, 4 Feb 1996 17:23:54 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602042323.RAA20050@tapr.org>
Rendered body type: text/plain

There were a series of exchanges on the APRS SIG detailing all this at one point after Win95 was released. The person did find the way to turn it off in on of the burried options.

Someone might want to go over and grab the APRS SIG Mail archives and see what the solution was.

Greg

>
>
> ------ =_NextPart_000_01BAF32A.72BBDB80
> Content-Type: text/plain; charset="us-ascii"
> Content-Transfer-Encoding: quoted-printable
>
> Doug,
>
> For what it is worth the advice follows: (So far the advice seems to =
> work)
>
> >As for the "Microsoft Problem" that is another problem that does not
> >happen all the time and it really gets weird when I forward or reply to
> >sender... seems that there may be some padding with control characters
> >that my mailer creates as an attachment. Although it is not "visible" =
> on
> >my end it ends up at the other site... plus it does not happen all the
> >time.... not sure how to proceed...
>
> >From what I have seen on other mail lists, the "fix" is available from
> MicroSoft if you can fine someone in their tech support that understands
> what you are asking.
>
> I could e-mail you the files if your mailer is MIME compatible.
>
> Ron Parsons
> ------
> Ron,
> I'm not defending microsoft but it's not "microsoft junk". It turns out =
> the=20
> microsoft mail program supports the latest rev of MIME encoding while =
> many=20
> of the older mail programs do not - in fact the offending problem is =
> your=20
> mail program not the microsoft's but Jon can turn it off so as not to=20
> offend users of obsolete software.
>
> Ron Curry
> -----
> So there you have it! =20
>
> There also seems to be a bug with the Microsoft Internet Explorer ver =
> 2.0 with the TAPR FTP site. It appears that the log in name is not sent =
> or sent properly.. NetScape ver 2.0 seems to work AOK if you configure =
> the setup properly. =20
>
> If anyone has an idea how to fix the MS Explorer let me know...
>
> Have a nice day!
>
> 73
> de Jon WA2YVL
> NNNN
> ----------
> From: Doug Rorem[SMTP:rorem@cherokee.eecs.uic.edu]
> Sent: Sunday, February 04, 1996 11:23 AM
> To: dsp-93@tapr.org
> Subject: [DSP-93:1945] microsoft mailers
>
> While we're on the subject of Microsoft mailers... Does anyone know

> why they frequently append stuff like this to email responses?? I think
> it's encoding the original message somehow but it doesn't appear to be
> in any MIME standard format, at least not one that our system can
> decode. Is it possible to configure the mailer to turn this stuff
> off?? Thanks.
>
> ------ =3D_NextPart_000_01BAF1C2.B7F758A0
> Content-Type: application/ms-tnef
> Content-Transfer-Encoding: base64
>
> eJ8+IjMEAQaQCAAEAAAAAAABAAEAAQeQBgAIAAAA5AQAAAAAAADoAAENgAQAAgAAAAIAAgAB =
> =20
> BJAG
> AAgBAAABAAAADAAAAAMAADADAAAACwAPDgAAAAACAf8PAQAAAD0AAAAAAAAAgSsfpL6jEBmd =
> =20
>
> ---[many lines deleted]---
>
> hXIKsVByQGI1YP4uYvGY754PZJ9lrx3GF2ECAKJgAAAAAwAQEAAAAAADABEQAAAAAEAABzCA =
> =20
> 44qs
> 6PG6AUAACDCA44qs6PG6AR4APQABAAAABQAAAFJFOiAAAAAAmCo=3D
>
> ------ =3D_NextPart_000_01BAF1C2.B7F758A0--
>
> --
> Doug Rorem
> University of Illinois at Chicago   (312)-996-5439 [voice]
> EECS Department RM 1120   (312)-413-1065 [fax]
> 851 S. Morgan Street   (708)-996-2226 [pager]
> Chicago, IL 60607-7053   rorem@uic.edu
>
>
>
>
> ------ =_NextPart_000_01BAF32A.72BBDB80
> Content-Type: application/ms-tnef
> Content-Transfer-Encoding: base64
>
> eJ8+IjYWAQaQCAAEAAAAAAABAAEAAQeQBgAIAAAA5AQAAAAAAADoAAENgAQAAgAAAAIAAgABBJAG
> AAgBAAABAAAADAAAAAMAADADAAAACwAPDgAAAAACAf8PAQAAAD0AAAAAAAAAgSsfpL6jEBmdbgDd
> AQ9UAgAAAABkc3AtOTNAdGFwci5vcmcAU01UUABkc3AtOTNAdGFwci5vcmcAAAAAHgACMAEAAAAF
> AAAAU01UUAAAAAAeAAMwAQAAABAAAABkc3AtOTNAdGFwci5vcmcAAwAVDAEAAAADAP4PBgAAAB4A
> ATABAAAAEgAAACdkc3AtOTNAdGFwci5vcmcnAAAAAgELMAEAAAAVAAAAU01UUDpEU1AtOTNAVEFQ
> Ui5PUkcAAAAAAwAAOQAAAAALAEA6AQAAAAIB9g8BAAAABAAAAAAAAAAMRKQEIgAcAGAAAAElQTS5N
> aWNyb3NvZnQgTWFpbC5Ob3RlADEIAQSAAQAkAAAAUkU6IFtEU1AtOTM6MTk0NV0gbWljcm9zb2Z0
> IG1haWxlcnMAOQsBBYADAA4AAADMBwIABAARADoADAAAADABASCAAwAOAAAAzAcCAAQAEQAzABkA
> AAA2AQEJgAEAIQAAADA5MzRGMDM5MUM1RkNGMTFCRTlCMDAyMEFGRDIwOEI5ADAHAQOQBgD8CQAA
> EgAAAAsAIwAAAAAAAwAmAAAAAAALACkAAAAAAAMANgAAAAAQAA5AOAVoEJU87oBHgBwAAEAAAAk
> AAAAUkU6IFtEU1AtOTM6MTk0NV0gbWljcm9zb2Z0IG1haWxlcnMAAgFxAAEAAAAWAAAAAbrzVEKg
> OfA0Cl8cEc++mwAgr9IIuQAAHgAeDAEAAAAFAAAAU01UUAAAAAAeAB8MAQAAABQAAABqYW5kcmV3
> c0BpLTIwMDAuY29tAAMABhA5wk7cAwAHEGQIAAAeAAgQAQAAAGUAAABET1VHLEZPUldIQVRJVElT
> V09SVEhUSEVBRFZJQ0VGT0xMT1dTOihTT0ZBUlRIRUFEVklDRVNFRU1TVE9XT1JLKUFTRk9SVEhF
> Ik1JQ1JPU09GVFBST0JMRU0iVEhBVElTQU5PAAAAAAIBCRABAAAAAdQgAAHEIAADpDgAATFpGdcNY
> 7BL/AAoBDwIVAqgF6wKDAFAC8gkCAGNoCsBzZXQyNwYABsMCgzIDxQIAcHJCcRHic3RlbQKDM7cC
> 5AcTAoM0EswUxX0KgIsIzwnZOxefMjU1AoAHCoENsQtgbmcxMDMvFFALChViDAFjAEAgRFkIYGcs
> CoUKhUYFsXdbEYAFQGkeIQQgdxdBaAIgHtBlIGFkdmkWYx8gAhBsFzB3czrwIChTbx+gCsEfCRGw
> mxPgBCB0IGAeoWspHNzHCvsUUQvxID5BBCACEJkgpCJNH3ADYHNvAYCcIFADYAJgE+AiIB7x9x4R
> HmIAcG8fAQXAE1AmA7kmdGRvB5EnISLFPhGAvHBwCfAfMB/QHvN0B3EdJwFkHjIXoCnReSBncxHA
> HoFlaQsgHeEpoUn1JKJ3CxEgBbEXoAtQK2DfIdAo5hGwKrAEkC4usCFm3x4CJ0IfIADAK2BiIVED
> cNMfICLwZGQLgGcd4B5A/x7gBaACMANgAyARcgDQE9D3EaAo5iaDbStgAMADECdh/wUAKyAT0Cbx
> JvIfMAJAANDeaAeAAjAu0BSwbB7QHJH/HuAeRCchJSAfYACQJhEmUH8CICjmM4EuYR4yLmEEIHX+
> cDTxHvMnNACQE9AusgtQ7nUEIB5BKGYgKWwytwdx9y6xLtA2wnMIcB8gNgAH4D8h0SeRH4AJgC6x
> HNw+Ru8DYR3kLIARgHYhUwOgAiCzOcUzsiBsBAAroCwk5NhmaXgmUCbidjPBAaD/JiAfoANhIsUl
> QyBQJbEGkLwgeQhgMYADkUNAbjBU/wIgHyALgB7yK/Ae8AWQHuDvPfApgBdBJnR1LnITwCqhnzKm
> HfNF4grAHyFzazEBJz9NLIAFoHVsKsBlLf9CM0XiHwJDQCYgOuFFw0IUQydhHnFNSU1FMYFtvyLw
> KlAmET9NCAADoFARkTsCIDKmLVITUIgcxkknXyfwNsINsS5hMQJtJVdiWnUeIic2pVS4akjga/oi
> LtBJL4EIcAYxCGA5dN8ixVS4QjMnkQnAYSfwSBXfLzIfIAtgNGEq8nYtEEXAb08TCfAFoDD0aDPR
> L/Fu/ytgIsVbsTmTTHBCBlm1BCD7KGA2sy1HIiCAMmA5hA3Q/1RFJ5YecU4jWFZZejbCHwL3VLdV
> sVVSSkGhRiJXch4y/2DhMGE0kmPDIGBdd1QyOSD/EbARoFuiJgAlkCYgE9AwYS8BgCzRT/9BoUMI
> cHJ5/1GqIs8brCBRL6RF4kEDHkD2ISZgHNxUL7MHQGaBIXe9MEFhVUExJR8CJUhJAjDjBJERwCBF
> eAtQBbAnYTNBIAXAMi4kUHInVEHkUFIdoFRQOiQmYFdBvylyEZEvR0JwWdBHIm5aAP9HETakLlFm
> IToReQInkSmQznIrUC7BB8B0U0YgKZDndGchexSwT0tFpwIgQ0B+Zz4CHwIRsTkxecdvXknfRcBd
> MUbyEYA0s2kNsHHA/z5FQ0FyZAXwc+dpAS/wHyDqaycgdz8vSEESccADAJUfgWQwECEc3DczbBUD
> DbBlM1dBMllWTB1sFU6IYWwbQoAxODDBAtFpLTE0NA3wDNDzihMLWTE2bDADYEfBX+H/jDdsF4rr
> DDCLtkBCICCKzx+L1AyCHHMH8RegbVtT2k114DoDYJFhQBFwBJAUb2sJ4C4J4GNzLsZ1H3CS0GR1
> XYzfje3vBmACMI8fkCtTSOEwEELQYEZlYnJ1CsArYDBCNELQMTk5NpkQMWg6MjMUsE2Tv43tVA5v
> lf+QKzkAcC05M9ZAAZATUC4FsGeZ/5TOOHViaovxnB+QK1tEFFNQniE6mSA0NV3nWL0yiIitMzaK
> tyQEi6f2V1zTK9AnL9FBoX2zoPT/W6OkLi6yHIA0coAkg2JJl88tkR8QK2ADUGVxClACMO8rUSlz

```
> KsATwHVmUUKAkqD/HvEecSHRE+BCQhegngBRcfkHkD8/LHGvIVbwbBVVk/dcNzmTBRBnC4AHQIMh
> BBA+YSuAMGM+QlVUKFNuJ/92lnFUsTYpsV1BTxNJMyzi+ySxAMB0QtAeESYgNKAFQO82wkbyJoNO
> MnMTs0YShrf7XFF2QUk640hABBA3QiHC/30cM7Uh0WXDryOuc2dYsJE7cFAAcGuTEBzcUhQgPZJf
> B8B4dFExdF+JsAIwwjAxQkFGMUMBdLBCN0Y3NThBjwp2CFBzYQIwLVR5KZC/ICApcUKARiAqUAIg
> LyGg/C10RoC+9sQHMkAAgFQwWHItRVxFICBiNKBlBDY0HNxlSjgrSQJqTzBBUWFRQ0EeQcngynTC
> oMpSUWVR0EJnQUnKcjXJ8Mp1+xyAykFOy4DMEcuAynHLoYXLgEJvV0JKQUdsFd/NIcrhytLMccpz
> Tc/Sz/M0Q3d1kETNQ9DgQWZkOFDMA0QwynXNIVMBx0BwTDZqRUJt9yrAb21SEVtdI0KARoBfcTJl
> aQJkXVJIbBVoWABJS3NWQnlRRwBJMVlQNHVZdgRHWcNANFBaSjkAbHJ4M0dGMkXZyjBLStFE0QBR
> ymXP8MxCRcwUymFCesowb1cFiiBxMqY2UEc2QTpV0NFEyjDcQtzzUjQXdZDMEM+jQswSRkpG1E9p
> ynRtCFA909/BX7/Cb8Nw1j5SV5D4bBVVAwBvdHE6MStgW7FJH9ALgG/bJuIFQENc0EYgZyBg6DZg
> KDMxMimeIJlALcnYgDM5JmBbdudQH4Dtk6ZF2VAF8EQtYOHxNWJ5JmBSTZlhJEHsL+jENMQxM4oA
> MDY16aEggLJ4k6Y4NW3hLtBNnrF9A5FTMcAJ4Cax8F/okjf0MDjpBDLyQJlQoyBsQJ0rgHKTpufF
> QtBJTNzg0e3wMDct8bA1mbD07/8mYJH0kzUc3KUvpj+nTGwVBRbBAPuAAAAAAwAQEAAAAAADABEQ
> AAAAAEAABzCg1M5PU/O6AUAACDCg1M5PU/O6AR4APQABAAAABQAAAFJFOiAAAAAAiXA=
>
> ------ =_NextPart_000_01BAF32A.72BBDB80--
>
>
```

27. RE: [DSP-93:1945] microsoft mailers

```
From: Ron Curry <recurry@insighttec.com>
Date: Sun, 4 Feb 1996 15:35:35 -0800
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <01BAF316.6DD7CFC0@expressp5.insighttec.com>
Rendered body type: text/plain
```

Microsoft Exchange will send all mail MIME encoded unless you set the default not to. What this means is it will send text formatting, fonts, etc. It's great if you are sending mail to mailers that support all the latest MIME encodings but those that don't get screw things that they don't understand. The simple answer is to go into the control panel and turn off MIME encoding.

Ron

```
----------
From:   Doug Rorem[SMTP:rorem@cherokee.eecs.uic.edu]
Sent:   Sunday, February 04, 1996 8:23 AM
To:     dsp-93@tapr.org
Subject:        [DSP-93:1945] microsoft mailers

While we're on the subject of Microsoft mailers... Does anyone know
why they frequently append stuff like this to email responses?? I think
it's encoding the original message somehow but it doesn't appear to be
in any MIME standard format, at least not one that our system can
decode. Is it possible to configure the mailer to turn this stuff
off?? Thanks.

------ =_NextPart_000_01BAF1C2.B7F758A0
Content-Type: application/ms-tnef
Content-Transfer-Encoding: base64

eJ8+IjMEAQaQCAAEAAAAAAABAAEAAQeQBgAIAAAA5AQAAAAAAADoAAENgAQAAgAAAAIAAgAB
BJAG
AAgBAAABAAAADAAAAAMAADADAAAACwAPDgAAAAACAf8PAQAAAD0AAAAAAAAAgSsfpL6jEBmd

---[many lines deleted]---

hXIKsVByQGI1YP4uYvGY754PZJ9lrx3GF2ECAKJgAAAAAwAQEAAAAAADABEQAAAAAEAABzCA
44qs
6PG6AUAACDCA44qs6PG6AR4APQABAAAABQAAAFJFOiAAAAAAmCo=

------ =_NextPart_000_01BAF1C2.B7F758A0--

--
Doug Rorem
University of Illinois at Chicago         (312)-996-5439  [voice]
EECS Department  RM 1120                  (312)-413-1065  [fax]
851 S. Morgan Street                      (708)-996-2226  [pager]
Chicago, IL 60607-7053                    rorem@uic.edu
```

28. RE: [DSP-93:1945] microsoft mailers

```
From: "Bruce L. Bevelheimer" <bruceb@eskimo.com>
Date: Sun, 4 Feb 1996 16:10:37 -0800
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF31B.7096AF60@brucebev9>
Rendered body type: text/plain
```

Hello all --

If you're using Microsoft Exchange for your mail, make sure you turn off
the "Always send to this recipient in Microsoft Exchange rich-text format."
option for any address not on the Microsoft Network. The attachment you see
is formatting info to allow the Exchange Mail program to set the fonts,
colors, etc. that you've chosen for your mail.

Double-click on the address on the To: line (dsp-93@tapr.org for this mail
group) and you'll see the checkbox you want to turn off. Once this is off
(and you choose OK, of course) there shouldn't be any more attachments of
what looks like random data for mail you send to that address.

On the other hand, if you want to send mail to some single person, or group
of people, who are using Exchange, you'll want to leave the checkbox ON for
those addresses.

Hope this helps - 73, Bruce, W3GDZ

From: Doug Rorem[SMTP:rorem@cherokee.eecs.uic.edu]
Sent: Sunday, February 04, 1996 8:23 AM
To: dsp-93@tapr.org
Subject: [DSP-93:1945] microsoft mailers

While we're on the subject of Microsoft mailers... Does anyone know
why they frequently append stuff like this to email responses?? I think
it's encoding the original message somehow but it doesn't appear to be
in any MIME standard format, at least not one that our system can
decode. Is it possible to configure the mailer to turn this stuff
off?? Thanks.

------ =_NextPart_000_01BAF1C2.B7F758A0
Content-Type: application/ms-tnef
Content-Transfer-Encoding: base64

eJ8+IjMEAQaQCAAEAAAAAAABAAEAAQeQBgAIAAAA5AQAAAAAAADoAAENgAQAAgAAAAIAAgAB
BJAG
AAgBAAABAAAADAAAAAMAADADAAAACwAPDgAAAAACAf8PAQAAAD0AAAAAAAAAgSsfpL6jEBmd

---[many lines deleted]---

hXIKsVByQGI1YP4uYvGY754PZJ9lrx3GF2ECAKJgAAAAAwAQEAAAAAADABEQAAAAAEAABzCA
44qs
6PG6AUAACDCA44qs6PG6AR4APQABAAAABQAAAFJFOiAAAAAAmCo=

------ =_NextPart_000_01BAF1C2.B7F758A0--

--
Doug Rorem
University of Illinois at Chicago   (312)-996-5439 [voice]
EECS Department RM 1120   (312)-413-1065 [fax]
851 S. Morgan Street   (708)-996-2226 [pager]
Chicago, IL 60607-7053   rorem@uic.edu

29. RE: [DSP-93:1949] RE: microsoft mailers

From: Ron Curry <recurry@insighttec.com>
Date: Sun, 4 Feb 1996 17:05:04 -0800
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <01BAF322.EE5B2BE0@expressp5.insighttec.com>
Rendered body type: text/plain

Bruce,
You are spot on. As I also said in a previous mail you can also turn it off
as default in the control panel under "Mail and Fax". It's amazing how
software that doesn't immediately work the way some expect "has a bug".
There is a saying for this - it has something to do with reading the manual
- in this case the help file.

Ron Curry

From: Bruce L. Bevelheimer[SMTP:bruceb@eskimo.com]
Sent: Sunday, February 04, 1996 10:22 AM
To: dsp-93@tapr.org
Subject: [DSP-93:1949] RE: microsoft mailers

Hello all --

If you're using Microsoft Exchange for your mail, make sure you turn off
the "Always send to this recipient in Microsoft Exchange rich-text format."
option for any address not on the Microsoft Network. The attachment you see
is formatting info to allow the Exchange Mail program to set the fonts,
colors, etc. that you've chosen for your mail.

Double-click on the address on the To: line (dsp-93@tapr.org for this mail
group) and you'll see the checkbox you want to turn off. Once this is off
(and you choose OK, of course) there shouldn't be any more attachments of
what looks like random data for mail you send to that address.

On the other hand, if you want to send mail to some single person, or group
of people, who are using Exchange, you'll want to leave the checkbox ON for
those addresses.

Hope this helps - 73, Bruce, W3GDZ

From: Doug Rorem[SMTP:rorem@cherokee.eecs.uic.edu]
Sent: Sunday, February 04, 1996 8:23 AM
To: dsp-93@tapr.org
Subject: [DSP-93:1945] microsoft mailers

While we're on the subject of Microsoft mailers... Does anyone know
why they frequently append stuff like this to email responses?? I think
it's encoding the original message somehow but it doesn't appear to be
in any MIME standard format, at least not one that our system can
decode. Is it possible to configure the mailer to turn this stuff
off?? Thanks.

------ =_NextPart_000_01BAF1C2.B7F758A0
Content-Type: application/ms-tnef
Content-Transfer-Encoding: base64

eJ8+IjMEAQaQCAAEAAAAAAABAAEAAQeQBgAIAAAA5AQAAAAAAADoAAENgAQAAgAAAAIAAgAB
BJAG
AAgBAAABAAAADAAAAAMAADADAAAACwAPDgAAAAACAf8PAQAAAD0AAAAAAAAAgSsfpL6jEBmd

---[many lines deleted]---

hXIKsVByQGI1YP4uYvGY754PZJ9lrx3GF2ECAKJgAAAAAwAQEAAAAAADABEQAAAAAEAABzCA
44qs
6PG6AUAACDCA44qs6PG6AR4APQABAAAABQAAAFJFOiAAAAAAmCo=

------ =_NextPart_000_01BAF1C2.B7F758A0--

--
Doug Rorem
University of Illinois at Chicago   (312)-996-5439 [voice]
EECS Department RM 1120   (312)-413-1065 [fax]
851 S. Morgan Street   (708)-996-2226 [pager]
Chicago, IL 60607-7053   rorem@uic.edu

30. RE: [DSP-93:1941] Re: apt source

From: David Stirrup <DSTI@jna.com.au>
Date: Mon, 05 Feb 96 14:15:00 EST
To: "'TAPR dsp-93'" <dsp-93@tapr.org>
Message-ID: <3115811D@msg.jna.com.au>
Rendered body type: text/plain

Hi Mark and all,

Ron is not the only one thinking about that TI development kit. It looks
very good for ham use.

I also know a few people who are put off by the long lead times and
pricing for the DSP-93.

Should not be an issue which platform is used if the source is available.

Dave Stirrup [VK2XDS, SMTP: stirrup@aust.net]

From: dsp-93[SMTP:dsp-93@tapr.org]
Sent: Saturday, February 03, 1996 5:58
To: dsp-93
Subject: [DSP-93:1941] Re: apt source

Ron,

Frank Perkins, WB5IPM, is the author. You might consult with him on this
issue. He is on this list, by the way. Frank wrote a BUNCH of the code
that is available for the DSP-93.

As for a used DSP-93, I have seen one or two go for sale on this list.
 If
somebody has one for sale, perhaps they will contact you directly.

Yes, I have seen others mention that chip. I forget who, though...sorry.

(by the way, look at the "goodies" your mailer is apparently adding at
the
end of each message)
==========
At 16:01 2/3/96 -0600, you wrote:
>Mark,
>That's too bad. I wanted to get it running on a TI c5x DSK - a much
lower
>cost unit with more processing power than the dsp-93. Could save me a
lot
>of time. These can be had for $99 from TI and $50 regularly on the net.
Are
>you the author? Do you know anyone with a used DSP-93 are an unbuilt
kit? I
>believe TAPR's next build is a ways off.
>
>Thx,
>Ron
>
>----------
>From: Mark L. Hammond[SMTP:hammond@camel.campbell.edu]
>Sent: Saturday, February 03, 1996 6:38 AM
>To: dsp-93@tapr.org
>Subject: [DSP-93:1938] Re: apt source
>
>Hi Ron,
>
>The APT source has not been released.
>
>At 11:31 2/3/96 -0600, you wrote:
>>Is this source available? It doesn't seem to be available on the ftp
site.
>>
>>73's Ron Curry
>
>
>Mark L. Hammond   [KC4EBR]
>
>
>
>
>begin 600 WINMAIL.DAT
>M>)\^(A45`0:0" `$`````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
>M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
>M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
>M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
>M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
>M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
>M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
>M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
>M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
>M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"``,`#0`V
>M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
>M,4$X`#,'`0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
>M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
>M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR
>M$<^_ "J`"]1J ```'@`># $````%````4TU44 `````>`!\,`0```!<```!R
>M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@```@`($ $`
>M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
>M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
>M1U!/5T525$A!3E1(14134 ``````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
>M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``!R
>M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
>M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
>M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
>M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
>M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0

```
>M&[ 'D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
>MV0K ;'D>4B+R;A' ')";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
>M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
>M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
>M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
>M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
>M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
>M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,\_
>MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
>M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F( GP^2@!;&55$ F ') Q5@J%
>M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
>M"W +8 )@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
>M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
>M`&> ``,`$! ``````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
>5`#T``0````4```!213H@`````.UD
>`
>end
>
>
>
```

Mark L. Hammond [KC4EBR]

31. RE: [DSP-93:1951] Re: apt source

From: Ron Curry <recurry@insighttec.com>
Date: Sun, 4 Feb 1996 20:08:11 -0800
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <01BAF33C.82FFCEE0@expressp5.insighttec.com>
Rendered body type: text/plain

DSP-93 is a good little unit - it seems it should be significantly less expensive though. The TI 320c2x chip is uses is quite old and relative slow compared to the 320c5x (or better yet the 320c3x which has floating point and makes programming OH SO MUCH EASIER than fixed point). In any case the c5x is the successor to the c2x and supposedly upward compatible. I've never ported any code from c2x to c5x yet to prove this but the data books I have bear this out. In any case the TI 320c5x DSK is very basic. About the same features as the DSP board of the DSP-93. It has a serial interface and it's code is downloaded from the PC. In fact, after looking at the DSP-93 schematics it appears to have been heavily influenced by TI's older 320c2x DSK. The c5x DSK can be had for between $50 and $99 depending on where you get it. I've used it for quite a number of little projects one of which is using two of them as CELP speech VOCODERS over a digital (Kantronics D4-10) link for digital audio transmission between analog voice repeater sites.

73's Ron Curry
KE6WED

From: David Stirrup[SMTP:DSTI@jna.com.au]
Sent: Sunday, February 04, 1996 1:03 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1951] Re: apt source

Hi Mark and all,

Ron is not the only one thinking about that TI development kit. It looks very good for ham use.

I also know a few people who are put off by the long lead times and pricing for the DSP-93.

Should not be an issue which platform is used if the source is available.

Dave Stirrup [VK2XDS, SMTP: stirrup@aust.net]

From: dsp-93[SMTP:dsp-93@tapr.org]
Sent: Saturday, February 03, 1996 5:58
To: dsp-93
Subject: [DSP-93:1941] Re: apt source

Ron,

Frank Perkins, WB5IPM, is the author. You might consult with him on this

issue. He is on this list, by the way. Frank wrote a BUNCH of the code
that is available for the DSP-93.

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end of each message)
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>Sent: Saturday, February 03, 1996 6:38 AM
>To: dsp-93@tapr.org
>Subject: [DSP-93:1938] Re: apt source
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>>
>>73's Ron Curry
>>
>>
>Mark L. Hammond   [KC4EBR]
>
>
>
>
>begin 600 WINMAIL.DAT
>M>)\^(A45`0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
>M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
>M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@`````!D<W M.3- =&%P<BYO
>M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
>M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
>M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
>M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
>M````! `````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
>M`#$(`02 `0`A```4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
>M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"```,`#0`V
>M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
>M,4$X`#,'`0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
>M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
>M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR
>M$<^_ "J`"]1J ``'@`># $````%````4TU44 `````>`!\,`0```!<```!R
>M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@``'@`($ $`
>M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
>M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
>M1U!/5T525$A!3E1(14134 ``````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
>M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``'!R
>M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
>M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
>M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
>M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
>M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
>M&['D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
>MV0K ;'D>4B+R;A' ')";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
>M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L

```
>M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
>M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
>M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
>M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
>M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,\_
>MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
>M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F( GP^2@!;&55$ F ') Q5@J%
>M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
>M"W +8 )@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
>M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
>M`&> ``,`$! ``````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
>5`#T``0````4```!213H@`````.UD
>`
>end
>
>
>


Mark L. Hammond   [KC4EBR]
```

32. Re: [DSP-93:1951] Re: apt source

```
From: Greg Jones <wd5ivd@tapr.org>
Date: Sun, 4 Feb 1996 22:34:27 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602050434.WAA03433@tapr.org>
Rendered body type: text/plain
```

This discussion comes up from time to time. The TI development platform is cheap because it doesn't have all the needed features that the DSP-93 or other amateur DSP unit have. No radio interface and the like. For the experimental hobbyiest who understands how to make this work and has the time to design and build the interfaces -- this is a good way to go. You can do some neat things with some of the horsepower available with the newer development units.

Most of the work in the DSP-93 went into the radio side of the unit not the DSP side of the unit. I am sure Mark, Ron, and the other folks can speak better to this issue.

Anyway -- sorry about the long lead times on the DSP-93 unit. Just no way for us to buy parts in smaller qty than what we are already doing and keep the price down to what we have. Just the way it is. Plus the lead time on parts in small qty are weeks (meaning 15 weeks+ in many cases). I am already ordering parts for the April shipment.

We just can't afford to keep the limited cash flow that TAPR has tied up in inventory for kit sales that come very slow over time. If we could afford to keep $10,000 or more in assets tied up in kits -- I would love to keep DSP-93 units in stock.

We currently only have 10 units sold for this next release. We need a minimum of 25 to be able to pay for the parts already ordered..or TAPR and AMSAT start losing money on the project this go around.

Just some info for everyone.

Cheers - Greg

```
>
>
> Hi Mark and all,
>
> Ron is not the only one thinking about that TI development kit.  It looks
> very good for ham use.
>
> I also know a few people who are put off by the long lead times and
> pricing for the DSP-93.
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> Should not be an issue which platform is used if the source is available.
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> Dave Stirrup  [VK2XDS,  SMTP: stirrup@aust.net]
>
>  ----------
> From:  dsp-93[SMTP:dsp-93@tapr.org]
> Sent:  Saturday, February 03, 1996 5:58
> To:  dsp-93
> Subject:  [DSP-93:1941] Re: apt source
```

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> >Sent: Saturday, February 03, 1996 6:38 AM
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> >
> >
> >Mark L. Hammond   [KC4EBR]
> >
> >
> >
> >
> >begin 600 WINMAIL.DAT
> >M>)\^(A45`0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
> >M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
> >M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
> >M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
> >M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
> >M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
> >M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
> >M`````! `````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
> >M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
> >M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"``,`#0`V
> >M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
> >M,4$X`#,'`0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
> >M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
> >M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR
> >M$<^_ "J`"]1J ``'@`># $````%````4TU44 `````>`!\,`0```!<```!R
> >M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@``'@`($ $`
> >M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
> >M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
> >M1U!/5T525$A!3E1(14134 ``````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
> >M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``!R
> >M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
> >M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
> >M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
> >M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #

```
> >M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
> >M&[ 'D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
> >MV0K ;'D>4B+R;A' ')";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
> >M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
> >M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
> >M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
> >M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
> >M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
> >M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,\_
> >MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
> >M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F( GP^2@!;&55$ F ') Q5@J%
> >M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
> >M"W +8 )@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
> >M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
> >M`&> ``,`$! `````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
> >5`#T``0````4```!213H@`````.UD
> >`
> >end
> >
> >
> >
>
>
> Mark L. Hammond   [KC4EBR]
>
>
>
```

33. Re: [DSP-93:1945] microsoft mailers

From: Sean Smithers <seans@magick.net>
Date: Sun, 4 Feb 1996 20:36:49 -48000
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <Pine.3.89.9602042043.A3219-0100000@gp.magick.net>
Rendered body type: text/plain

It enables Rich Text Format which allows for fancy formatting, fonts, etc.
>From what I've read, you can uncheck a RTF checkbox when you send the
message onto the Internet and this will get rid of the attachment.

```
==========================================================================
Sean Smithers
Internet:   seans@gp.magick.net
CompuServe: 70132,136
Packet:     N7ZWU @ WB7VMS.#MURPH.OR.USA.NOAM
```

On Sun, 4 Feb 1996, Doug Rorem wrote:

> While we're on the subject of Microsoft mailers... Does anyone know
> why they frequently append stuff like this to email responses?? I think
> it's encoding the original message somehow but it doesn't appear to be
> in any MIME standard format, at least not one that our system can
> decode. Is it possible to configure the mailer to turn this stuff
> off?? Thanks.
>

34. Re: [DSP-93:1952] Re: apt source

From: Greg Jones <wd5ivd@tapr.org>
Date: Sun, 4 Feb 1996 22:39:53 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602050439.WAA03541@tapr.org>
Rendered body type: text/plain

I wish we could get the unit out cheaper, but after you factor in overhead
and parts and AMSAT and TAPR having to split the profit we get the price we
have.

Oh well. Buying qty hundred just does not work as well as buying in qty
100,000 at times.

TI, from what I make understand - lose money on the DSK units. They are
written off as advertising and marketing, becuase from those unit people
build real units and purchase items based on the experimental boards.

I am interestied in your vocoder project. Maybe you could write that up for
the PSR or the upcoming DCC conf in Sept. Would make a good article of
paper for either.

Cheers - Greg

>
> DSP-93 is a good little unit - it seems it should be significantly less
> expensive though. The TI 320c2x chip is uses is quite old and relative slow
> compared to the 320c5x (or better yet the 320c3x which has floating point
> and makes programming OH SO MUCH EASIER than fixed point). In any case the
> c5x is the successor to the c2x and supposedly upward compatible. I've
> never ported any code from c2x to c5x yet to prove this but the data books
> I have bear this out. In any case the TI 320c5x DSK is very basic. About
> the same features as the DSP board of the DSP-93. It has a serial interface
> and it's code is downloaded from the PC. In fact, after looking at the
> DSP-93 schematics it appears to have been heavily influenced by TI's older
> 320c2x DSK. The c5x DSK can be had for between $50 and $99 depending on
> where you get it. I've used it for quite a number of little projects one of
> which is using two of them as CELP speech VOCODERS over a digital
> (Kantronics D4-10) link for digital audio transmission between analog voice
> repeater sites.
>
> 73's Ron Curry
> KE6WED
>
> ----------
> From: David Stirrup[SMTP:DSTI@jna.com.au]
> Sent: Sunday, February 04, 1996 1:03 PM
> To: dsp-93@tapr.org
> Subject: [DSP-93:1951] Re: apt source
>
>
> Hi Mark and all,
>
> Ron is not the only one thinking about that TI development kit. It looks
> very good for ham use.
>
> I also know a few people who are put off by the long lead times and
> pricing for the DSP-93.
>
> Should not be an issue which platform is used if the source is available.
>
>
> Dave Stirrup [VK2XDS, SMTP: stirrup@aust.net]
>
> ----------
> From: dsp-93[SMTP:dsp-93@tapr.org]
> Sent: Saturday, February 03, 1996 5:58
> To: dsp-93
> Subject: [DSP-93:1941] Re: apt source
>
> Ron,
>
> Frank Perkins, WB5IPM, is the author. You might consult with him on this
> issue. He is on this list, by the way. Frank wrote a BUNCH of the code
> that is available for the DSP-93.
>
> As for a used DSP-93, I have seen one or two go for sale on this list.
> If
> somebody has one for sale, perhaps they will contact you directly.
>
> Yes, I have seen others mention that chip. I forget who, though...sorry.
>
> (by the way, look at the "goodies" your mailer is apparently adding at
> the
> end of each message)
> ==========
> At 16:01 2/3/96 -0600, you wrote:
> >Mark,
> >That's too bad. I wanted to get it running on a TI c5x DSK - a much
> lower
> >cost unit with more processing power than the dsp-93. Could save me a
> lot
> >of time. These can be had for $99 from TI and $50 regularly on the net.
> Are
> >you the author? Do you know anyone with a used DSP-93 are an unbuilt
> kit? I
> >believe TAPR's next build is a ways off.
> >
> >Thx,
> >Ron
> >

```
> >----------
> >From:  Mark L. Hammond[SMTP:hammond@camel.campbell.edu]
> >Sent:  Saturday, February 03, 1996 6:38 AM
> >To:    dsp-93@tapr.org
> >Subject:       [DSP-93:1938] Re: apt source
> >
> >Hi Ron,
> >
> >The APT source has not been released.
> >
> >At 11:31 2/3/96 -0600, you wrote:
> >>Is this source available? It doesn't seem to be available on the ftp
> site.
> >>
> >>73's Ron Curry
> >
> >
> >Mark L. Hammond   [KC4EBR]
> >
> >
> >
> >
> >begin 600 WINMAIL.DAT
> >M>)\^(A45`0:0" `$`````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
> >M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
> >M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
> >M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
> >M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
> >M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
> >M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
> >M````! `````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
> >M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
> >M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"``,`#0`V
> >M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
> >M,4$X`#,'`0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
> >M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
> >M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR
> >M$<^\_ "J`"]1J ```@`>#  $````%````4TU44 `````>`!\,`0```!<```!R
> >M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@```@`($ $`
> >M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
> >M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
> >M1U!/5T525$A!3E1(14134 ``````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
> >M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``!R
> >M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
> >M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
> >M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
> >M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
> >M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
> >M&[ 'D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
> >MV0K ;'D>4B+R;A' )";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
> >M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
> >M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
> >M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
> >M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
> >M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
> >M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,\_
> >MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
> >M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F( GP^2@!;&55$ F ') Q5@J%
> >M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
> >M"W +8 )@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
> >M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
> >M`&> ``,`$! ``````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
> >5`#T``0````4```!213H@`````.UD
> >`
> >end
> >
> >
> >
>
>
> Mark L. Hammond   [KC4EBR]
>
>
>
>
>
>
```

35. RE: [DSP-93:1955] Re: apt source

From: Ron Curry <recurry@insighttec.com>
Date: Sun, 4 Feb 1996 23:05:53 -0800
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF355.5639ACA0@expressp5.insighttec.com>
Rendered body type: text/plain

Greg,
One of the things you could do is to make the PCB's with docs available seperately. That would save you a lot of hassle and for those of us who are experienced in scrounging up our own parts it would save a lot of money and waiting and ultimately get you more software. Have you guys thought of doing a conversion to a c5x based version? Should be relatively straightforward - might actually be a cost reduction. A c3x would be even better with its floating point capability. There is also a shareware (or possibly public domain) C compiler available for the c3x. Software would flow a lot faster (meaning people could write it easier).

W.R.T. to TI. According to my source at TI, DSK's are not sold at a loss but clearly the margins are small. It's only a very small PCB with the c51, an eprom, the AIO chip, some RS-232 level shifters and a few discretes. No case, no power supply, no cables, just the board. The c51 has 14k of RAM on chip so there are no seperate RAM chips either. TI's biggest cost on this thing is the big thick data book, programmers ref manual, and floppies (comes with assembler, source level debugger, PC interface software and example apps/source code).

W.R.T. to VOCODER/digital speech. It's still in the experimental stage at the moment. I'd like to get the speech quality up since right now I'm using LPC which is somewhat mechanical sounding but offers a really low data rate. Moving to a c3x is under consideration since there are more modern algorythms using floating point with source available (less time consuming to port). On top of that it really needs some reasonable channel coding implemented since it's just a brain dead digital data stream on top of ax25 right now (meaning you need a good RF link). It's unclear if there is enough horsepower to do both the VOCODER/filters and channel coding with one c51 (never with a c2x!). I know there are lot's of guys (like Phil Karn) who are experts in this stuff and know how to build commercial digital equipment - I'm just a hobbiest/former engineer working on it in my spare time. My desire is to build something that amateurs can implement broadly using inexpensive stuff. Once it's actually deployed formally on at least one link I would consider writing it up to share what I've learned.

73's Ron Curry
KE6WED

From: Greg Jones[SMTP:wd5ivd@tapr.org]
Sent: Sunday, February 04, 1996 2:59 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1955] Re: apt source

I wish we could get the unit out cheaper, but after you factor in overhead and parts and AMSAT and TAPR having to split the profit we get the price we have.

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the PSR or the upcoming DCC conf in Sept. Would make a good article of paper for either.

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> never ported any code from c2x to c5x yet to prove this but the data

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> I have bear this out. In any case the TI 320c5x DSK is very basic. About
> the same features as the DSP board of the DSP-93. It has a serial
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> 73's Ron Curry
> KE6WED
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> ----------
> From: David Stirrup[SMTP:DSTI@jna.com.au]
> Sent: Sunday, February 04, 1996 1:03 PM
> To: dsp-93@tapr.org
> Subject: [DSP-93:1951] Re: apt source
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>
> Should not be an issue which platform is used if the source is available.
>
>
> Dave Stirrup [VK2XDS, SMTP: stirrup@aust.net]
>
> ----------
> From: dsp-93[SMTP:dsp-93@tapr.org]
> Sent: Saturday, February 03, 1996 5:58
> To: dsp-93
> Subject: [DSP-93:1941] Re: apt source
>
> Ron,
>
> Frank Perkins, WB5IPM, is the author. You might consult with him on this
> issue. He is on this list, by the way. Frank wrote a BUNCH of the code
> that is available for the DSP-93.
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> As for a used DSP-93, I have seen one or two go for sale on this list.
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> somebody has one for sale, perhaps they will contact you directly.
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>
> (by the way, look at the "goodies" your mailer is apparently adding at
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> end of each message)
> ==========
> At 16:01 2/3/96 -0600, you wrote:
> >Mark,
> >That's too bad. I wanted to get it running on a TI c5x DSK - a much
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> >cost unit with more processing power than the dsp-93. Could save me a
> lot
> >of time. These can be had for $99 from TI and $50 regularly on the net.
> Are
> >you the author? Do you know anyone with a used DSP-93 are an unbuilt
> kit? I
> >believe TAPR's next build is a ways off.
> >
> >Thx,
> >Ron
> >
> >----------
> >From: Mark L. Hammond[SMTP:hammond@camel.campbell.edu]
> >Sent: Saturday, February 03, 1996 6:38 AM
> >To: dsp-93@tapr.org

```
> >Subject:       [DSP-93:1938] Re: apt source
> >
> >Hi Ron,
> >
> >The APT source has not been released.
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> >At 11:31 2/3/96 -0600, you wrote:
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> >
> >
> >Mark L. Hammond   [KC4EBR]
> >
> >
> >
> >
> >begin 600 WINMAIL.DAT
> >M>)\^(A45`0:0" `$`````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
> >M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
> >M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
> >M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
> >M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
> >M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
> >M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
> >M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
> >M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
> >M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"```,`#0`V
> >M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
> >M,4$X`#,''0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
> >M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
> >M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR
> >M$<^\_ "J`"]1J ``'@`># $````%````4TU44 `````>`!\,`0```!<```!R
> >M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@```'@`($ $`
> >M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
> >M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
> >M1U!/5T525$A!3E1(14134 ``````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
> >M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"`'!R
> >M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
> >M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
> >M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
> >M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
> >M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
> >M&[ 'D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
> >MV0K ;'D>4B+R;A' ')";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
> >M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
> >M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
> >M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
> >M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
> >M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
> >M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,\_
> >MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
> >M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F( GP^2@!;&55$ F ') Q5@J%
> >M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
> >M"W +8 )@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
> >M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
> >M`&> ``,`$! ``````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
> >5`#T``0````4```!213H@`````.UD
> >`
> >end
> >
> >
> >
>
>
> Mark L. Hammond   [KC4EBR]
>
>
>
>
>
>
>
```

```
begin 600 WINMAIL.DAT
M>)\^(C<''0:0" `$`````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
```

```
M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
M<F<`4TU44 !D<W M.3- =&%P<BYO<F<``````'@`", $````%````4TU44 ``
M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
M`#$(`02 `0`A```4D4Z(%M$4U M.3,Z,3DU-5T@4F4Z(&%P="!S;W5R8V4`
M7@D!!8 #``X```#,!P(`! `7``4`-0```"H!`2" `P`.````S <"``0`%@`8
M``H````1`0$)@ $`(0```#4Y-D4V-S T,$(U1D-&,3%"0T9#,#!!03 P,D8U
M,4$X`#D'`0.0!@"P&@``$@```L`(P``````P`F```````+`"D```````,`
M-@``````0 `Y`. 3M6.8\[H!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DU
M-5T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6``````;KSF&.U!&=N6E\+
M$<^\_ "J`"]1J ``'@`># $````%````4TU44 `````>`!\,`0```!<```!R
M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80V&9V-@,`!Q!S&0``'@`($ $`
M``!E````1U)%1RQ/3D5/1E1(151(24Y'4UE/54-/54Q$1$])4U1/34%+151(
M15!#0E-7251(1$]#4T%604E,04),15-%4$52051%3%E42$%45T]53$13059%
M64]504Q/5$]&2$%34TQ%00``````"``0D0`0```"49```A&0``!RH``$Q:1G4M
MS/HW_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``!R
M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
M,Q10"PH4424+\F,`0"!'%A!G+ $*A4]N92!O9B!<=&@;T!P@"X!G!"!Y!0A@
M( 6@=6QD(&2\;R $`!P0'8 `P&L<0N$;T%!#0B<$( /P'"#E'6%C!"!A=@MP
M"V "8"L;T!&P< 2081/0;'E8+B!4$8 %0'<=(W/G'Y ;T!S282 5H 5 &_'_
M$8 $$" !`' =4 (0!< <(/9O$; ;XG4>T2/ 'X 6$)@@97@@40B0;F,)@'\=
MD .@!/$(8!D0'($D,'"W&^ (<!O@=P.@"K%T!"!?'P`A.B(W!& ;P'DC(W?]
M"W!T)E(C,ATP*> `P""2O"!G$< <PP1@),%S&_ N="FP%A @T$@AMF=UXQ.P
M(Z)U9V@B<QUP*?/M'0%N(< 1H&D"(!W"+H%P-7@@8B+0)8$NU3_W!@`M@1U!
M8AO0%A +8"G@[R' *O$3P"!P:2VQ(W$L,1T=4"T=\#)B'X!C='4_!T J\3%!
M+H(3P#%A9'77,[ O$2#001T`,R_ (43],4%E(< #H#% `D $D![DMQ\`!" 8
MX&\QH29A<"XQZ05 8V$*L&(#$!\`(,._!) ;T!VA!T K\"(A<Q&!NP?0)+(H
M!;$X4 00:0)@R2E0<'4"8&EC'6$`P)$+@"D@0QT!;7 #$+\W`1^8(W0;T#6A
M(-!3+ 5O(34WP0?@(C1F(M V\BCG!X `<#@396\+4#Z!'2-^=P40$] GDD$@
M`) $D"D'(- *A0J%5RY2+E13(- =T51)-6%C!:%D_R92'=(R`0AA)7 ?@ 5
M10!@+"!$4TL>P22R;C\B82OP'4$A$2(R!!%B=;\XD2 `"L J\1PB`,!R)D&=
M1V1S`, S\"#0270>P?\"("KQ(C NT3(!2L(>@A[D^3YC-3%'``.1($ #84<`
ML1PB04E/'0`<<'!'`(<K\ > !_!3+3(S$>#_( `QT3IA!I V\1]Q(T$B,'YF
M!]%%D 3Q$< 'D"#03K\=@#BP$;!''$? .$%W-P%V<R:0"U!Y4J,XL!_Q<_U'
M`&HD0 5 '"(&X L1.5-#35(BLB Q-&L;XE+\04U+84[#*^$<$B3!1X3O("=6
MHT[2!"!E'P$$D"#1]DD>P3CP9RL@-*$T@R\B?QQP+5(F4EN35/$R8!Q28YU6
M8&0@@"(P!N!O:T<`\TWQ"<!A;0> 4+$6$"CQ?P!P,]%-DC_#4W (D 0@*+\\
M\0>1'O,BT1/@'_%R3Q+_1F-/] VP2/!:D6%Q'I EH?\V\4"01H$K]B,C)/!>
M,$'"^SC 67 O1D4%H VP0U]$: !63T-/1$52+[]%D"9 `9!0,2!0!9!H2P7_
M$\ #$ ,@);$<(B3T!X ",/]HL@&0*R!&HDFS3T$",$L!_B<=4#D0'B(=@"LB
M'")HY/P@<3/1.2$F@@"0)6$Q8&\S4T? !^!:,&TD,2923/]C$21P/" W86F1
M3T$D<"$1_P> $7$#`#BP4#$F$4632/+_&_!10%"R,6$SXS_R73,@<O$@T$UO
M=D6E+H$UL1VA_W+1-P$NH0"0!($QH2\A;P2O5YDKHP1E!T!G!;!Y'"!^;7:!
M<%,WS1[S1D8?IRCO5#$=L0=Q=O-U,T!%M#A0_P`@9C$;L!W!)J$<`B$1)Z&_
M=!4;P F <51T`BOP;A_C_W(B&\ #(&7Q6^-DXFKB)8'_;P0?`![!5(-=83)!
M`Z -L/YA'5%H=5TS,B%!(' @+R/Y?U-A>!A ;UE!!QS2@)(O(B%YT 1P!_!&
M;-%N:_]F,4LC)B!),QV0' ,YI GP_RV2(K %L" Q4P,=T1UQ!N#[3/5GYF8#
M$%"7@?T>\RDA/56S*!O +M%@E1T`,GCR(8I"(&MOPE>H(E%+0F\<`"TC?1!L
M\E << ,@2[\*P#RA)'LG<EM5$\!U#=#?(R.2@R/ DK&-874#$(\QVP-P7E%C
M!S&%9V5N4 4@WVKB,Q%P`H15(\!B./!:L?^.@ 6P7E&+\29!"> W$06P_FLF
M4B\A)Z$EL482"K$<0?\'<751*5 -L "0.:28%T\R_UO$?Z->,""!"' $(#BP
MG6'W@O:$L3?@9"KQ<$2<<24!_P"!(<&6XW[B@]8SIPVP"U#\;WDE@9O2,^,O
M(2$124'_6Q-A\8H1DE$A1'<&0E-;X_\%0":1'=$Z<R1A(1%:,"'!STE"&\!5
M469L-S,>P0@`'0.@0PAP3 `*A4M%-AA7140*BSD0,3@PZ0+1:2U60#0-\ S0
MK_/Y"UDQ-@J@`V 3T#.P,Q!?LA<*A[#+##"QED8#83I/LQZQE@R"&N,@2BDA
M<P!;4TU44#IW9+(U,<!D0 &0$U N!;#\9UVRO[/-!F ",+3_M@NJ4W+185.A
M1F* <C/0"4P!,#1'`#$Y.3:@(#(Z-3D>@$VXWSFSS51ONQ^V"X# <"V\.3.X
M-[\/N>X[\&JQT:O!+[8+6T<@4,,Q.KY ]1A070?P9<9@.,!'XD9B\V9LKO8S
M-K"7&D6QEJA!_P0`'R!3$!T%;68F(">A"&#?.)$<,#C 86)(\F%0@AS#?V.1
M'="+(0.@=8 $D,\A9!\*A2,R)T0C,E; 4T%4X2,C5$%04B*Q=99HX/\Y$1P3
M3?&.D"$A&]!M9A-0OSP@/V')]M/A+&%F74_-4EE*XB!"+3 F4G%NH6C_<M$6
M$51T'7 'D4?"G-)@X?_8H]MR2/#90R6QV9$*A1DPM# LKY P:Z,'<BYF;/]&
MX@-2JK4=]':C:U$C03,@_TBA; (I,EM#&]!'(<YS4@'_.6(I423!"H5"8A/0
MT0&7$OT?<60NT2G@<%,C,DGQ'B#_*>+/@060,] CX=^C([3.@_]!E0J%F$1T
M$N+4T@1&82+!_T*B$^!(T2_SXC5JBU43WF[_DF"&@6-#6K$(D"63'-$%P+YV
M'U $<EW2QB+7<4V],/\Q01S80F1_HR:1(W$*A1Y3/E/3P#XU)I \\2921$-]
M/-)N' `EL09@!3#7<5?_'2,>`XEE)U$\(" !&_ *A=\*L"!1(V-9I69L0QPP
M4*+O,R :\F9L"H4^_#C(5#G#^XET.1%T( '.@S,@)Z$1L._K8O]2,.<[@&<#
M`(Z0H;'__J!T87TR_$>CF"UT561%`/H@3\ PD?%7%'9R$; G@?_]X)GA0I%(
M$R-!,78@(#_R__Q'//(DL1U0'=$<(@0"+['_.Q(VQ:8@5+0$`C6R</-6`G\W
MS?Q'YA0>(/W@7>8F4D]&2+K 3K!-54,.8$5X05-):#!_DGF0CI!X[R6!.%.*
M0GF1;BE04F(<$_\'."^Q7"534$50?3$C@@ADWP0RX2)34B/1HM-P,M,'P_\I
MX'S1;((AP?Q'D21^DHDR_Q#B>5'?E 0R'=$OH@GC4M'_L: "XQVA2/(<(ETW
M`<F28/_7,C$Q\Y-V<<[1UW$0K@/5_R^QXJ)V<4OCZZ$\(#5A78#_20'\1VVC
M7C ^`4$@,\#O(?O;<N)D4%4$?V0C$\,Q2P+_5?,Z4>RA:+%C2 QKI/,80_MV
M<=J@=TN HK&F,N>4\^'^0Q"#T()-D<_SX8!=H"Y#_U2T_-Y1H,Y0H3$\(/_#
```

```
M93'_25&?@QR5-I'/(7602Y'+T/T+<'6<0!,0,2'CD%HC!='_-P'\1P0%1R%5
M9A]DH;(`@9]6`*9#-K)3$#:1)#7=T?V7422^4*7"G$!%DX:Q_$?_E6 YDO&B
M;6+_`!8U!/$G$O\^$P5T=/!?`&$PG*%_<?YU__"E2U+W\C6J<05P1#\@1?#G
M(]3NP%810T5PH&W69^7>4]$3<^%H9OQ'*)4`>X"GL:!R4?W@1#2OX#"50.>G
M\_D":&9A=4605X%W</^HX/3P2,!WHC.F7O!YL%X`__ 1UF+\1UZ@+6$)HB!@
M4>+__$^LS_QEKBO\N;(?_+"TM>VVDD33\6204ZF K8!NT*>W=#&@WV! :H&0
M+F!!?BY"@+C&_+"ZU;R_O<LQ_#HP_;"^Y_RPP0/"S\/7=T\1Q@?(#3')#TF/
M5\=(WFGQ,=M2EU&E@2Q7ST?C_W9QVO+.0N'@IL,:0XH@Y=/_(,-_HP/1I=!B
M,5_ FB.=`/\=HZ<Q&YP?\XF#^0(D\' B]Q8@G>_N@FR \)=T=/!SH/]TH.B%
ME6;JL'-C+[+.0N& _Y 1JV$(,=XRES)AE]9">H/_]$4D16&?NL `)-KR`(&A
MPN]]0"]0<-7+H72F8@2U[X'_(^1\!?W2?(9HW_RZ'*),U<%X,%M62S)8,:"^
M(&^ZP+>2AC%,\T!"@.] +OVKH'1.F',W2H]+EU,%MW1?4QU.GKK (E)0'3.^
M)35]OJ X4?M3!50/<0'(5S1_5B]S/T?B6=]+HA#0J"!0"_K G0%SOB!70C5)
M?[[@OB 2=4* Y]%3L-> 6?_QL?3PA\*HPLW VQ&04@2 WX:4EJ& 5VL3UW%(
M)[.%E=^GX>] YN%E5!5 >==Q@73'\D"QL24A0E5.#M$CU;\80B$9H/%MRF?O
M@&]!"U'_^1$E,#>SR%2^(!QU_X'1`?\ZHA-A/)'W0/CS(>#WXH>)OXVH[H#X
M)ORPH#(;@&39L;_;@:>RD=:^(.R1)/!P$H/_XY"%`-O1]8$_<+'A\:)"H-_[
M,+'@I:"-K_RP6040D!W_^6+]X*)"0W+RHP1R';*F4O\VXF1!OB #%9W $T&M
MD)B?WT AB%B^("IR*N8B]T+O8/QS(N_$]M!N(*DA_=(M4/]D@0%#,S U,VOP
M(1H!Z T!OR/1SS +`=Y!(> VX"F>5[X]IO>.2 Q L^!1D#&^@,@O,R^^82TP
MRW#=D&OQDXF#.IY7/ED2@$@^OP.0:_ G41G0/*#KH&06,?^(L>[Q"#,VY 9
M_N#^\#547R4P`]$?1O\P)3!M$O!H_YY7!O'ZP*HXS:#:<?[CA0/_X=!DDK1
M$Q(+Q+"A#V0:\WM3(P-P0\VS(> <L2(!8?NO^:/(/B/2WC$#<^=1,KW_-*+G
M@P/1-&,T,?LQS<#$,.]<$\XS<O&>2$'[,*HX\:+]@Q@_,9 \H/&B8R00X#J2
M_X4#CTMD<P^1_N#I8J/(7K']O=!)JC@`@$%P%T'3@R=1_7+P>&J1Z7/]TXC!
M'6'D\/6>2#ZK*GBK&5L!Q4^JH:]T;ZJA=959$TP#<$@-X=WAX&1-1&$1RS)
M,K B`'O8X,Q1<,+!V. 4T$Z)/LMX7WEO(*A@,SC2X:LI_WMB=>93?\X!?*?3
MXU5XT'#_??_'K_R@6.& &\7;!;##4/Y4;48D\FIT+F$&41SP%,'OQ3^JDJ@B
M48 SJ)^IK_R@_#Y)$H)L86U5;??!\0Q \R@`!1!N)_]D&<)JLHPW>^P%*B!P
MD_@%D=M)Q=D^'T>OVX^J/,K)U")+0S3X14)2S7GJ/^M/PF8_4 =$$-VQ]F!)
M3DU!21'*T$1!5*HY/BE<`%Q>*$$T-6 PHU&0H8!@)&#P9"'P8 'P43 ^,"%
M8"A-\&)94.#P92-(\.$M]D#Q\:HY8/%P\&'QD?%P]"$A05 F]$'PT?#"\F$K
M\##P82SU<B/P8B)0F& O(_/C]H!@/^]P9B_S*O("(U3P9?1!,@!,/TDK6D,D
M(4!&/3M (SWOX%U"-//4(40\5PZ@+@(S_S ])B50/$($64^J.3Q&/& TH%15
M-#0@^O]/_,*U\&(G\7 B>A#P4R7P8N_]!/!@\RKP8#[UT?:@\@+>(?6B_6_^
M=/:@-?60\%,Q]D O6"_Q8?,;(5B7\& L0/5#)//B(CT";^7\P4?Y!"0K_T7O
MT/!A@ZHY_0,C220T5?LTF#4D)5#P^^ O- ;04_!D]J!@+O($*_! ($9:^%/Q
M@"%=0.]P(0<`C 'T\&,L,2HP))8H\N#\X";UHB1%4: `,EDM.C8M4CL`5RU/
M.4<P0#. -B5).R)9+A$0M#%%\RHC#[#OX#+P, WR`$'_PT$`6B@E32$*A2Q:
M+#,QH"XE,%1 -$84(?NA/2*$(5,1$#52.%;Z@/&J.3=01/2 T(#V007!L?)P
M+"%0\9'VH"WR<I8E\##TP",7D& R\"%M]J N\&(^H#SW0/7A(_7R`%8`BTSP
MP/%P' `/H!8I\N#P4"CX8SA4+0A4)%AY\50L4R@453%!$"85`"4B,#14.1A0
M(_2 4:(L1&0X5:HY+#0=@!A!)^?OX Q0\6 C4 ("!F,;\38H#"$+U4;P90S
M(D0_#P;S&O+0\&2Z(/'08"HB(E$`6TXB[W!+2/XA_P`8</#C\& 3OQ3&JCFG
M%4\65?D$)5$FE3;P8P`[2U) 2TQ++4@H25I6`%A2JCDD5#Q>[W!?H/!*]H!=
M[#%*]:'_`3X#]?^[`3/>(>]P]? !P_ZB(2SZ>E $+54(`"E9,"9%`$X\5D5'
M.B<QT1ZP-BQ.%H!=`2+V0= X,%@X'L!1'U#PP.Y1PS#STO\!* S@\% `BP0A
M1?!B,S0E,C+P4E$T,@L@_3 >$-TP4%0I(3$08#=0\%FG?= XX3@P/24+$$7]
M,*Q%-?M0/G N,V!=VTE$33!6$"DP4WJ@,9 E+2LK-T M-4$0`"@S)%TW,34I
M,",S52WOP#C *35$)3T]4"1!+3S@*5$WT"4I+QZ@-3<P5(,Z$*HY,54A+S4^
M<((R/:$A,T4Q*#CQ9S<P#N3W0#!$\@#R`B;2//9!(4,,$DI0\/#A(E%5X$<U
M.ZHY)3-H2#1?]J J[^#O<"*%"S J)C ^3") (4#1\@!/*"GTX4-,`*]0HS,`
M/] L0SSTP3OV0%!(+%)@[W T]T G@3%[,$<D,5A''6 %>E!414!3+5=@3@`P
M)R10*B _, <N@/\P[W I5C-/43HE#:%2/=!'@/+@2B$$(SL(@#@N(4XYIE-)
MT!^J43'P$%!$(% T.50K[W!&,,$@03B@(DPA2RM+@"51$&$Q0"=(D"$6$%0,
M.U;O</& )BE!.<PB6/E0&< V/2% 3&H//' "4$>P!F Y42<@(E$6$$DA-#%P
M/3:N6/9 `E#=T$*@\"@6$*A!)EH:@$P>4%5/, Q 0#NB4[!4/D ]NC'0N4U5
M0/NP#7 V53 $4#))L$TB6CM10B^?8"%74"=+P".+[W!/0#\=T$PD.!>PWC -
M<-V03[ @L$2@\%@0?4C 41J0]C"J.4" ]C!$"S>P6* W`E X)RU0"BL5$2?T
MH"@T-E,%4D R%B X-SA!/(EO@2=(N@!(+T0+,!@F749'L%T0/#%2TC"J.29;
M71!$"X!<T,L>4!F -N^@/"$0$%Q@::#P)"\+(% >D!'P,EO54!L0)-= )F%$
M,V! E3S -%>0/3;0.5(^4*FJ.58PKU [62 ^"U":*Q$`05)06^ B.S4!@US0
M62 H."(K0UR@HU]P'(!4)4Q7T3_YT$$U$"H[*4L[4X!@^%=2/@W:9I"<<%.P
M&8 2)U*@521H$#TH)SQ4/Q1 M, [D%0`*#:75\!AT%> .!% 56 U$%E=D4P]
M13!"D"=.L$90*"@Y3*HY(O2@1,8L.S!2L"4H.V8AKL!G:0`K$/ 05D)@4?!0
M(3):)D M(DQ 7R!$6"PV."7@1" [:A! .V8M[H#QD"983&HN`$NC3<"YH%$N
M(Q[P8$/PC_F0/& =4()04",M%B"@+2DL*S8\8%8N(&?V,%AP/E X5V7@\!!4
MD%9-4$I;<#9,JQG#@K =,%8Q0U0=,$00I%=/97!6(VN .BS@K"$L#W!>0#+[
MH$U@(;1'2!10,UA0"C)(3R#%(3 S\! W0%KQ,*HY01'06%TP-R R\#,J5J#P
M.%?1/3_05S<.4]"@^>!*02-&/R[82DTU4]!/D")'L&R@)U)0Z.!2P$5/:W ]
M6%=&(&=:]* Y#Z LW= R9?H0,!TP0"V*,!4P(4(R>( W+%X_>R$U`5VP($]3
M2DLH4S'=`#I0)@^@"J!.(:EDL$<Q2F%?JCE#0R! /#A&2%8\;V!/B7O1.RL/
MD%I:5/(`UC%'L&)@7S;0,Q80.U!3"P!W@$<L93 R4E LQDOO<+_P4RQ6/=!_
M\(]>:B=@AC#N<$DL1VT0B6_ 32=;("-=*R% NSD@_2!&$U!1P'+ )&MP$84@
M4%%XR]/ [)C7/"Q#/(&1Q4F U0$[0'ZI>1 LA$Q!-,! 0.G7 *.1/21A03S%@
M@'503N"C'U!^@44R1E+@4U! 3BZ*P5UP"Z$W64<@(;\WT(V@$7!KROL@2^ @
M')!/T! SH'Z0A1 Y)E?A1,5P$$<X,"5?(ID0$6 #:*#TD$(E.EE20O,BP%AP
M4$=>0/[P:! YD-0E11LJ-ERP5TT@2L @7U,J(2AIH3PD"0Q0+"])X$$S35W,
M-486$(90(2L[8#N@`8V0*%XY15TO4V!5(S\T/I7Q'B!1_?,J)ET`]=+YT [E
```

```
M]J X< LO$P("/$UP*E9**?I(9"!.*Q#UH450FPAA</^J._0^*+R`RJB?X!
ML&&0\?!C+E5$JCCS&:4A[!__H2^FHZ*?RG[ICZ+_IL^GW^>B(JE,HA)D7,+@
M$9!$D$9PX("N,%QF,ZN@<U]6P*(0WE+3L*BF?:'P``&M8 `````,`$! ``````
M`P`1$ <```! ``<P0()PCY+SN@% ``@P0()PCY+SN@$>`#T``0````4```!2
)13H@`````'F)
`
end
```

36. RE: [DSP-93:1953] Re: apt source

From: David Stirrup <DSTI@jna.com.au>
Date: Mon, 05 Feb 96 18:52:00 EST
To: dsp-93 <dsp-93@tapr.org>
Message-ID: <3115C272@msg.jna.com.au>
Rendered body type: text/plain

Thanks Greg,

Yes I well understand the investment / time issue.

What I would suggest is that we split the design and build the appropriate radio interface onto a separate analogue board. Just about all DSP kits/eval units/ production boxes available have and audio in/out interface.

Dave.

From: dsp-93[SMTP:dsp-93@tapr.org]
Sent: Sunday, February 04, 1996 10:39
To: dsp-93
Subject: [DSP-93:1953] Re: apt source

This discussion comes up from time to time. The TI development platform is
cheap because it doesn't have all the needed features that the DSP-93 or other amateur DSP unit have. No radio interface and the like. For the experimental hobbyiest who understands how to make this work and has the time to design and build the interfaces -- this is a good way to go. You can
do some neat things with some of the horsepower available with the newer development units.

Most of the work in the DSP-93 went into the radio side of the unit not the
DSP side of the unit. I am sure Mark, Ron, and the other folks can speak better to this issue.

Anyway -- sorry about the long lead times on the DSP-93 unit. Just no way
for us to buy parts in smaller qty than what we are already doing and keep
the price down to what we have. Just the way it is. Plus the lead time on
parts in small qty are weeks (meaning 15 weeks+ in many cases). I am already ordering parts for the April shipment.

We just can't afford to keep the limited cash flow that TAPR has tied up in
inventory for kit sales that come very slow over time. If we could afford
to keep $10,000 or more in assets tied up in kits -- I would love to keep DSP-93 units in stock.

We currently only have 10 units sold for this next release. We need a minimum of 25 to be able to pay for the parts already ordered..or TAPR and
AMSAT start losing money on the project this go around.

Just some info for everyone.

Cheers - Greg

>
>
> Hi Mark and all,
>
> Ron is not the only one thinking about that TI development kit. It looks
> very good for ham use.
>

> I also know a few people who are put off by the long lead times and
> pricing for the DSP-93.
>
> Should not be an issue which platform is used if the source is
available.
>
>
> Dave Stirrup [VK2XDS, SMTP: stirrup@aust.net]
>
> ----------
> From: dsp-93[SMTP:dsp-93@tapr.org]
> Sent: Saturday, February 03, 1996 5:58
> To: dsp-93
> Subject: [DSP-93:1941] Re: apt source
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> Ron,
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> Frank Perkins, WB5IPM, is the author. You might consult with him on
this
> issue. He is on this list, by the way. Frank wrote a BUNCH of the
code
> that is available for the DSP-93.
>
> As for a used DSP-93, I have seen one or two go for sale on this list.

> If
> somebody has one for sale, perhaps they will contact you directly.
>
> Yes, I have seen others mention that chip. I forget who,
though...sorry.
>
> (by the way, look at the "goodies" your mailer is apparently adding at

> the
> end of each message)
> ==========
> At 16:01 2/3/96 -0600, you wrote:
> >Mark,
> >That's too bad. I wanted to get it running on a TI c5x DSK - a much
> lower
> >cost unit with more processing power than the dsp-93. Could save me a

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> >of time. These can be had for $99 from TI and $50 regularly on the
net.
> Are
> >you the author? Do you know anyone with a used DSP-93 are an unbuilt

> kit? I
> >believe TAPR's next build is a ways off.
> >
> >Thx,
> >Ron
> >
> >----------
> >From: Mark L. Hammond[SMTP:hammond@camel.campbell.edu]
> >Sent: Saturday, February 03, 1996 6:38 AM
> >To: dsp-93@tapr.org
> >Subject: [DSP-93:1938] Re: apt source
> >
> >Hi Ron,
> >
> >The APT source has not been released.
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> >At 11:31 2/3/96 -0600, you wrote:
> >>Is this source available? It doesn't seem to be available on the ftp

> site.
> >>
> >>73's Ron Curry
> >
> >
> >Mark L. Hammond   [KC4EBR]
> >

> >
> >
> >
> >begin 600 WINMAIL.DAT
> >M>)\^(A45`0:0" `$`````!``$``0>0!@`(````Y 0``````#H``$-@ 0`
> >M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
> >M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
> >M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
> >M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
> >M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
> >M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
> >M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
> >M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
> >M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"``,`#0`V
> >M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
> >M,4$X`#,'`0.0!@#P! ``$@````L`(P````````P`F````````+`"D````````,`
> >M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
> >M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR
> >M$<^_ "J`"]1J ```@`># $````%````4TU44 `````>`!\,`0```!<```!R
> >M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@```@`($ $`
> >M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
> >M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
> >M1U!/5T525$A!3E1(14134 ``````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
> >M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``!R
> >M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
> >M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
> >M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
> >M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
> >M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
> >M&['D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
> >MV0K ;'D>4B+R;A' ')";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
> >M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
> >M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
> >M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
> >M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
> >M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
> >M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,_
> >MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
> >M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F(GP^2@!;&55$ F ') Q5@J%
> >M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
> >M"W +8)@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
> >M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
> >M`&> ``,`$! ``````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
> >5`#T``0````4```!213H@`````.UD
> >`
> >end
> >
> >
> >
>
>
> Mark L. Hammond   [KC4EBR]
>
>
>

37. Re: [DSP-93:1956] Re: apt source

From: Greg Jones <wd5ivd@tapr.org>
Date: Mon, 5 Feb 1996 04:04:17 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602051004.EAA20682@tapr.org>
Rendered body type: text/plain

>
> Greg,
> One of the things you could do is to make the PCB's with docs available
> seperately. That would save you a lot of hassle and for those of us who are
> experienced in scrounging up our own parts it would save a lot of money and
> waiting and ultimately get you more software. Have you guys thought of
> doing a conversion to a c5x based version? Should be relatively
> straightforward - might actually be a cost reduction. A c3x would be even
> better with its floating point capability. There is also a shareware (or
> possibly public domain) C compiler available for the c3x. Software would
> flow a lot faster (meaning people could write it easier).

We have done this in the past with other kits and have found that 90% of the
boards sold never get built and folks just have a negative attitude towards
purchasing something again in the future. So the question is -- how does
one select who and who can't complete the kits without affecting how the

organization operates. This is a tough question and I don't want to think about how often we discuss it.

The other problem is that even if the builder does scrounge the parts -- then they have a problem -- then they expect help from TAPR to fix the problem...sorta of a no win situation.

We will be making the TNC-95 available as a bare board -- but then again there are about 10 parts on it, not the over 300 on the DSP-93.

> W.R.T. to TI. According to my source at TI, DSK's are not sold at a loss
> but clearly the margins are small. It's only a very small PCB with the c51,
> an eprom, the AIO chip, some RS-232 level shifters and a few discretes. No
> case, no power supply, no cables, just the board. The c51 has 14k of RAM on
> chip so there are no seperate RAM chips either. TI's biggest cost on this
> thing is the big thick data book, programmers ref manual, and floppies
> (comes with assembler, source level debugger, PC interface software and
> example apps/source code).

Yeah -- this about what I thought. Just wish TAPR was like TI :-) Then the amateur community could have some real fun.

> W.R.T. to VOCODER/digital speech. It's still in the experimental stage at
> the moment. I'd like to get the speech quality up since right now I'm using
> LPC which is somewhat mechanical sounding but offers a really low data
> rate. Moving to a c3x is under consideration since there are more modern
> algorythms using floating point with source available (less time consuming
> to port). On top of that it really needs some reasonable channel coding
> implemented since it's just a brain dead digital data stream on top of ax25
> right now (meaning you need a good RF link). It's unclear if there is
> enough horsepower to do both the VOCODER/filters and channel coding with
> one c51 (never with a c2x!). I know there are lot's of guys (like Phil
> Karn) who are experts in this stuff and know how to build commercial
> digital equipment - I'm just a hobbiest/former engineer working on it in my
> spare time. My desire is to build something that amateurs can implement
> broadly using inexpensive stuff. Once it's actually deployed formally on at
> least one link I would consider writing it up to share what I've learned.

I understand. One of TAPR futgure goal is to offer some type of digital voice application using BPSK or other modem. I would think that digital voice on a 38.4 radio (future project in review currently) might be cool as a project. Also -- will need some type of digital audio for many of the spread spectum solution that are being proposed TAPR to do in the future.

Well - you thinkabout writing something up for the DCC on what you are experienting with.

Cheers -- Greg

38. Re: [DSP-93:1957] Re: apt source

From: Greg Jones <wd5ivd@tapr.org>
Date: Mon, 5 Feb 1996 04:07:48 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602051007.EAA20706@tapr.org>
Rendered body type: text/plain

There was a dicsusion on the HF SIG about doing a interface board for the Moto eval board to allow development of the HF modem stuff. Nothing was ever done beyond outlineg what needed to be done by the group. The few that wanted to do it had more than enough experience and had the junk box to just build it up themself.

Maybe we can get someone to develop what an interface board would be for the various TI DSKs unit for amateur use and then TAPR could do up the board and make those available as just a board or kit. I would imagine it could be simple. If we could somehomw keep the same gain stages as the current dsp-93, that might provide some flexibility with code porting and development.

That is the kind of thing TAPR can do. Take a simple design and provide the mechanism to distribute it to a lot of amateurs.

Cheers - Greg

>
>
> Thanks Greg,
>
> Yes I well understand the investment / time issue.

> What I would suggest is that we split the design and build the
> appropriate radio interface onto a separate analogue board. Just about
> all DSP kits/eval units/ production boxes available have and audio in/out
> interface.
>
> Dave.
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> From: dsp-93[SMTP:dsp-93@tapr.org]
> Sent: Sunday, February 04, 1996 10:39
> To: dsp-93
> Subject: [DSP-93:1953] Re: apt source
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> cheap because it doesn't have all the needed features that the DSP-93 or
> other amateur DSP unit have. No radio interface and the like. For the
> experimental hobbyiest who understands how to make this work and has the
> time to design and build the interfaces -- this is a good way to go. You
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> do some neat things with some of the horsepower available with the newer
> development units.
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> Most of the work in the DSP-93 went into the radio side of the unit not
> the
> DSP side of the unit. I am sure Mark, Ron, and the other folks can speak
> better to this issue.
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> Anyway -- sorry about the long lead times on the DSP-93 unit. Just no
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> for us to buy parts in smaller qty than what we are already doing and
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> the price down to what we have. Just the way it is. Plus the lead time
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> We currently only have 10 units sold for this next release. We need a
> minimum of 25 to be able to pay for the parts already ordered..or TAPR
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> Just some info for everyone.
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> Cheers - Greg
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> > Hi Mark and all,
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> > I also know a few people who are put off by the long lead times and
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> > Should not be an issue which platform is used if the source is
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> > Dave Stirrup [VK2XDS, SMTP: stirrup@aust.net]
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> > Sent: Saturday, February 03, 1996 5:58
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> > >>73's Ron Curry
> > >
> > >
> > >Mark L. Hammond   [KC4EBR]
> > >
> > >
> > >
> > >
> > >begin 600 WINMAIL.DAT
> > >M>)\^(A45`0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
> > >M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
> > >M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
> > >M<F<`4TU44 !D<W M.3- =&%P<BYO<F<``````'@`", $````%````4TU44 ``
> > >M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
> > >M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
> > >M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
> > >M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
> > >M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
> > >M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"``,`#0`V
> > >M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
> > >M,4$X`#,''0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
> > >M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
> > >M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR

```
> > >M$<^\_ "J`"]1J ``'@`># $````%````4TU44 `````>`!\,`0```!<```!R
> > >M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@``'@`($ $`
> > >M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
> > >M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
> > >M1U!/5T525$A!3E1(14134 `````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
> > >M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``'!R
> > >M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
> > >M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
> > >M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
> > >M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
> > >M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
> > >M&[ 'D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
> > >MV0K ;'D>4B+R;A' ')";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
> > >M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
> > >M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
> > >M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
> > >M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
> > >M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
> > >M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,\_
> > >MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
> > >M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F( GP^2@!;&55$ F ') Q5@J%
> > >M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
> > >M"W +8 )@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
> > >M678W,QOQ_5*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
> > >M`&> ``,`$! ``````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
> > >5`#T``0````4```!213H@`````.UD
> > >`
> > >end
> > >
> > >
> > >
> >
> >
> > Mark L. Hammond   [KC4EBR]
> >
> >
> >
>
>
>
```

39. UNSUBSCRIBE

```
From: Bob Recny <brecny@globetek.com>
Date: Mon, 5 Feb 1996 10:14:23 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF3B3.003B6CE0@clev-lan-5.cic.net>
Rendered body type: text/plain
```

UNSUBSCRIBE

40. RE: [DSP-93:1955] Re: apt source

```
From: Ron Curry <recurry@insighttec.com>
Date: Mon, 5 Feb 1996 20:48:44 -0800
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF40B.57CED3E0@expressp5.insighttec.com>
Rendered body type: text/plain
```

```
----------
From:   Ron Curry[SMTP:recurry@insighttec.com]
Sent:   Sunday, February 04, 1996 11:05 PM
To:     'dsp-93@tapr.org'
Subject:        RE: [DSP-93:1955] Re: apt source

Greg,
One of the things you could do is to make the PCB's with docs available
seperately. That would save you a lot of hassle and for those of us who are
experienced in scrounging up our own parts it would save a lot of money and
waiting and ultimately get you more software. Have you guys thought of
doing a conversion to a c5x based version? Should be relatively
straightforward - might actually be a cost reduction. A c3x would be even
better with its floating point capability. There is also a shareware (or
possibly public domain) C compiler available for the c3x. Software would
flow a lot faster (meaning people could write it easier).

W.R.T. to TI. According to my source at TI, DSK's are not sold at a loss
but clearly the margins are small. It's only a very small PCB with the c51,
an eprom, the AIO chip, some RS-232 level shifters and a few discretes. No
case, no power supply, no cables, just the board. The c51 has 14k of RAM on
chip so there are no seperate RAM chips either. TI's biggest cost on this
```

thing is the big thick data book, programmers ref manual, and floppies
(comes with assembler, source level debugger, PC interface software and
example apps/source code).

W.R.T. to VOCODER/digital speech. It's still in the experimental stage at
the moment. I'd like to get the speech quality up since right now I'm using
LPC which is somewhat mechanical sounding but offers a really low data
rate. Moving to a c3x is under consideration since there are more modern
algorythms using floating point with source available (less time consuming
to port). On top of that it really needs some reasonable channel coding
implemented since it's just a brain dead digital data stream on top of ax25
right now (meaning you need a good RF link). It's unclear if there is
enough horsepower to do both the VOCODER/filters and channel coding with
one c51 (never with a c2x!). I know there are lot's of guys (like Phil
Karn) who are experts in this stuff and know how to build commercial
digital equipment - I'm just a hobbiest/former engineer working on it in my
spare time. My desire is to build something that amateurs can implement
broadly using inexpensive stuff. Once it's actually deployed formally on at
least one link I would consider writing it up to share what I've learned.

73's Ron Curry
KE6WED

From: Greg Jones[SMTP:wd5ivd@tapr.org]
Sent: Sunday, February 04, 1996 2:59 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1955] Re: apt source

I wish we could get the unit out cheaper, but after you factor in overhead
and parts and AMSAT and TAPR having to split the profit we get the price we
have.

Oh well. Buying qty hundred just does not work as well as buying in qty
100,000 at times.

TI, from what I make understand - lose money on the DSK units. They are
written off as advertising and marketing, becuase from those unit people
build real units and purchase items based on the experimental boards.

I am interestied in your vocoder project. Maybe you could write that up
for
the PSR or the upcoming DCC conf in Sept. Would make a good article of
paper for either.

Cheers - Greg

>
> DSP-93 is a good little unit - it seems it should be significantly less
> expensive though. The TI 320c2x chip is uses is quite old and relative
slow
> compared to the 320c5x (or better yet the 320c3x which has floating point
> and makes programming OH SO MUCH EASIER than fixed point). In any case
the
> c5x is the successor to the c2x and supposedly upward compatible. I've
> never ported any code from c2x to c5x yet to prove this but the data
books
> I have bear this out. In any case the TI 320c5x DSK is very basic. About
> the same features as the DSP board of the DSP-93. It has a serial
interface
> and it's code is downloaded from the PC. In fact, after looking at the
> DSP-93 schematics it appears to have been heavily influenced by TI's
older
> 320c2x DSK. The c5x DSK can be had for between $50 and $99 depending on
> where you get it. I've used it for quite a number of little projects one
of
> which is using two of them as CELP speech VOCODERS over a digital
> (Kantronics D4-10) link for digital audio transmission between analog
voice
> repeater sites.
>
> 73's Ron Curry
> KE6WED
>
> ----------
> From: David Stirrup[SMTP:DSTI@jna.com.au]
> Sent: Sunday, February 04, 1996 1:03 PM
> To: dsp-93@tapr.org
> Subject: [DSP-93:1951] Re: apt source

>
>
> Hi Mark and all,
>
> Ron is not the only one thinking about that TI development kit. It looks
> very good for ham use.
>
> I also know a few people who are put off by the long lead times and
> pricing for the DSP-93.
>
> Should not be an issue which platform is used if the source is available.
>
>
> Dave Stirrup [VK2XDS, SMTP: stirrup@aust.net]
>
> ----------
> From: dsp-93[SMTP:dsp-93@tapr.org]
> Sent: Saturday, February 03, 1996 5:58
> To: dsp-93
> Subject: [DSP-93:1941] Re: apt source
>
> Ron,
>
> Frank Perkins, WB5IPM, is the author. You might consult with him on this
> issue. He is on this list, by the way. Frank wrote a BUNCH of the code
> that is available for the DSP-93.
>
> As for a used DSP-93, I have seen one or two go for sale on this list.
> If
> somebody has one for sale, perhaps they will contact you directly.
>
> Yes, I have seen others mention that chip. I forget who, though...sorry.
>
> (by the way, look at the "goodies" your mailer is apparently adding at
> the
> end of each message)
> ==========
> At 16:01 2/3/96 -0600, you wrote:
> >Mark,
> >That's too bad. I wanted to get it running on a TI c5x DSK - a much
> lower
> >cost unit with more processing power than the dsp-93. Could save me a
> lot
> >of time. These can be had for $99 from TI and $50 regularly on the net.
> Are
> >you the author? Do you know anyone with a used DSP-93 are an unbuilt
> kit? I
> >believe TAPR's next build is a ways off.
> >
> >Thx,
> >Ron
> >
> >----------
> >From: Mark L. Hammond[SMTP:hammond@camel.campbell.edu]
> >Sent: Saturday, February 03, 1996 6:38 AM
> >To: dsp-93@tapr.org
> >Subject: [DSP-93:1938] Re: apt source
> >
> >Hi Ron,
> >
> >The APT source has not been released.
> >
> >At 11:31 2/3/96 -0600, you wrote:
> >>Is this source available? It doesn't seem to be available on the ftp
> site.
> >>
> >>73's Ron Curry
> >
> >
> >Mark L. Hammond   [KC4EBR]
> >
> >
> >
> >
> >begin 600 WINMAIL.DAT
> >M>)\^(A45`0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
> >M`@````(``@`!!) &``@!```!````# `````,``# #````"P`/#@`````"`?\/
> >M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
> >M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``

```
> >M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
> >M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
> >M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
> >M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
> >M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
> >M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"``,`#0`V
> >M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
> >M,4$X`#,'`0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
> >M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
> >M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KR@KLK-(IZ95XR
> >M$<^\_ "J`"]1J ```@`># $````%````4TU44 `````>`!\,`0```!<```!R
> >M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@```'@`($ $`
> >M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
> >M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
> >M1U!/5T525$A!3E1(14134 ``````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
> >M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``!R
> >M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
> >M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
> >M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
> >M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
> >M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
> >M&[ 'D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
> >MV0K ;'D>4B+R;A' ')";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
> >M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
> >M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
> >M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
> >M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
> >M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
> >M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,\_
> >MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
> >M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F( GP^2@!;&55$ F ') Q5@J%
> >M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
> >M"W +8 )@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
> >M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
> >M`&> ``,`$! ``````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
> >5`#T``0````4```!213H@`````.UD
> >`
> >end
> >
> >
> >
>
>
> Mark L. Hammond   [KC4EBR]
>
>
>
>
>
>
```

```
begin 600 WINMAIL.DAT
M>)\^(BX$`0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
M`0```#T``````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
M<F<`4TU44 !D<W M.3- =&%P<BYO<F<``````'@`", $````%````4TU44 ``
M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DU-5T@4F4Z(&%P="!S;W5R8V4`
M7@D!!8 #``X```#,!P(`!0`4`# `+ `!`$L!`2" `P`.````S <"```4`% `O
M`! ``0`N`0$)@ $`(0```$9$,3,W14(Y13DU1D-&,3%"0T9#,#!!03 P,D8U
M,4$X`' ``0.0!@`<&P``$@````L`(P```````P`F```````+`"D```````,`
M-@``````0 `Y``":0F5.]+H!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DU
M-5T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````;`````;KSF&.U!&=N6E\+
M$<^\_ "J`"]1J `M<R(!`!X``@P!````!0```%--5% ``````'@`?# $````7
M````<F5C=7)R>4!I;G-I9VAT=&5C+F-O;0```P`&$)R[3,<#``<0^1D``!X`
M"! !````90```"TM+2TM+2TM+2U&4D]-.E)/3D-54E)94TU44#I214-54E)9
M0$E.4TE'2%1414-#3TU314Y4.E-53D1!62Q&14)254%263 T+#$Y.38Q,3HP
M-5!-5$\Z1%-0+3DS0%1!4%)/4D<``````@$)$ $```"0&0``C!D```XL``!,
M6D9UV*%)>O\`"@$/`A4"J 7K`H,`4 +R"0(`8V@*P'-E=#(W!@`&PP*#,@/%
M`@!P<D)Q$>)S=&5M`H,S=P+D!Q,"@'T*@ C/"=D[\18/,C4U`H *@0VQ"V#@
M;F<Q,#,44 L*%%$U"_)C`$ @"H4*BVQI"#$X, +1:2TQ-)XT#? ,T!S3"UDQ
M-@J@ZP-@$]!C!4 M'O<*AQVKZPPP'G9&`V$Z'_X>=@R""P?Q`Z!#"'!R>5M3
```

```
M4$U44#H6$&,D`D"S"X `D&=H`D %D"X%H/QM71^?(*T&8 (P(=\BZX!3=6YD
M87DL(8 096)R=0K >2 P0C0JD#$Y.38K<#' .C U(%!-)A\@K0Q4;RA?(NLG
M9'-PL"TY,T !D!-0+@6PC&<G+%\G+G5B:AZQ"RY_(NQ%,]!;1%-0K3"1.BN
M&%!=!_!E,]#+,. %0',(86-E&O\<`UPS-AUW&D@>9T<6$&<"+ J%3VYE(&]F
MN"!T:#O0/" +@&<$( IY"& @!:!U;&0@>&1O( 0`/! ]@ # :\,\0CO04$-"
M)P0@`_#+/" ]86,$(&%V"W +8%<"8#O0$;!P!)!A$]!L7'DN+D 1@ 5 =STC
M<^<_D#O0/-)A(!6@!4 [\?\1@ 000 $`<#U0`A %P#P@]F\1L#OB=3[10\ W
M`!80V"!E>$!1")!N-Y ]4'\+@#= !0`(8!D0/(%$,'"W.^ (<#O@=P.@"K%T
M!"!_/P!!.D(W!& [P"L@0S)W_0MP=$920S(],$G@`,! DOP@9Q' /,,$8$3!
M-U !@)=)L!800-!(0;9G=1.P?4.B=25A.^(]<$GS/0%N.T' $:!I(\$]T4Z!
M-7C<(&)"T$6!3M4_!@!-@?T]06([T!80"V!)X$' 2O&_$\! <"520W%,,3U0
M+3WP[R52-P`>P"KP;$KQ44%.@G,3P%%A9'4>P$\10-!!W3T`,T_ 0411065!
MP .@?U% )8$%P#[S/P`$(!C@;]M1H49A<$XQ!4!C,. !H/\#$#\`0,,$D#O0
M/:$'0#=0W4(A<Q&!!]!$LB@%L5A0;000:0)@*R!P,W <,&,W/6$`P N *2/@
M/0%M<'\#$%<!/YA#=#O05:% T%/?3 5!-5?!!^!"-&9"T%;RSB@'@ !P6!-E
M;PM07H']/2-W!1 3T$>282 `D 20!BE T#>\5RY2+E130- ]T51)56%C!:%D
MOT92/=)2`3=C-P`N,4DJD.TV`$L^P42R;D)A-U ]0>=!$4(R!!%B=5B10 `*
MP+]*\3PB`, Q,"4A1*-S`,#S4_! T$ET/L$"($KQ0C _3M%2`6K"/H(^Y%YC
M-3$_*I #D4! `V$JD#PB04GV3ST`/'!P*I W4 > !_#P4RTR,Q'@0 !1T5IA
MWP:05O$_<4-!0C!F!]%ED.\$\1' !Y! T$X]@%BP$;#7*I!GP%A!=U<!<T:0
M"U"O*H%RP5BP/_%S*I!J1$#_!4 \(@;@"Q%94VU20K(K<,0T:SOB4D%-:V%N
MP_\W03P21,%GA$ G=J-NT@0@;F4_`0200-%)/L%8\&?_2R!4H52#3R(\<$U2
M1E)[D_=T\250/%)C=F J8 &0=0&<;VLJD!YQ"<!A;0> _W"Q%A!(\0!P4]%M
MDE_#<W#[") $("@ET0>1/O-"T1/@_3_Q<F\29F-O] VP:/!ZD?^!<3Z01:%6
M\6"09H%+]D,CWT3P?C!APC#@>7 O9D4%H <-L&-?9&A63T-/1/A%4B]ED$9
M`9!P,4!0_060:&L%$\ #$ ,@1;$\(O]$] > `C"(L@&02R!FHFFSWV]!`C!K
M`3!00D!I/B(]@.=+(CPBB.0@<5/162%&@G\`D$5A46!34V? !^!Z,&W[1#%&
M4DR#$41P7"!788F1_V]!1'!!$0> $7$#`%BP<#'_1A%EDVCR._!Q0'"R46%3
MXX]?\GTS0') T$UO=F6E_TZ!5;$]H2I!5P%.H0"0!(%_4:$CP8\$=YE+HP1E
M!T!G]06P>3P@;9:!D%-7S3[S>V9&/Z<H=#$]L0=QEO-U_U- 9;184 `@AC$[
ML#W!1J'_/ )!$4>AE!4[P F D524`OTW4&X_XY(B.\ #((7Q>^/_A.**XD6!
MCP0_`#[!=(-]8?=200.@#;!A/5&(=7TS4B'/82"0($\CGU-A>!A CUE_80<\
MTJ"20B&9T 1P!_!&^8S1;FN&,6LC*D!I,SV0_SP#6:0)\$V20K %L$ Q<P/_
M/=$]<0;@;/6'YAR@2H!PIN^A_3[S22%ULR@[P$[1@)61/0`R>"&J0B!KC\)_
M=ZA"46M"/ !-(YT0C/)0^SQP`R!+"L!<H41(1W)[5?T3P'4-T$,CLH-#P+*Q
MK6'>=0,0KS$#<'Y18P<QI6?^98Y0!2"*XE,1D *D54/ _F)8\'JQKH %L'Y1
MJ_%&0?<)X%<1!;!K1E(CP4>A1;'_9A(*L3Q!!W&542L@#; `D/]9I+@7;S)[
MQ)^C?C! @0APOP0@6+"]8:+VI+%7X&1*\?^01+QQ10$`@4'!MN.>XJ/6YU.G
M#; +4&]Y18&[TE/C_R/!01%I07L3@?&J$;)1043_EP9B4WOC!4!&D3W16G-$
M87]!$7HP0<%I0CO =5$WO#<.,S[!([<*A4M%-E?T140;;3(>0!R/- \>KY\Q
MCR#/,]\BZSKR($I)(:)S)$1W9#51P&0PQS\F#S)O*"\I/RI/*U8R.OPU.2PO
MV;\N3S2^,&W?#_\R?S./X>\U[S;_. \!P3E-_]&6R$$$`#\@<Q ]!8UFW0!_
M1Z$(8%B1/# PX(%B:/)A_W""/,.#D3W0JR$#H)6 !)!][R%D"H5#,D=$0S)V
MP%.$051#(U1!4%)"L?^5EC!P61$\$]&1S\!!(3O0_XUF$U!<(%]AZ?;SX4QA
M&NUF3^U2:N(@0DTP1E)Q_8ZA:-T!%A%T=#UP!Y%GPO^\TH#A^*/[<FCP^4-%
ML?F1TPJ%&3 P+!QP,(NC!W+^+NH,9N(#4LJU/?26HXM1_T-!4R!HH8P"23)[
M0SO09R'_[G-R`5EB25%$P0J%8F(3T/?Q`;<2D]%D3M%)X)!30S+_:?$^($GB
M[X$DL4_Q_Y1#M/_N@V&5"H6X1)02`M3R!.G!_T+!8J(3X&C13_,"-8J+=1/_
M_FZR8*:!@T-ZL7_P19-!\7WX8'8_4)E2?=+F(O=Q3?_=,%%!/-AB9)^C1I%>
M(>/U?3Y34_/ 7C5&D"711E)$^D-<TFX\`$6QVM#I</=Q_E<](SX#J67R85P@
M0 $[\+_C]>0@0%%#8WFER_Q#/##?<*)3(#KRR_SC]3X<..A4]UG#J719$71
M`>Z#4R!BP?] , MB'U)0YR5!84#/P,&Q_QZ@E&&=,AQ'PYA-='5D90#Z(&_
M,+'Q=Q26<D P1X'_D]"YX7C1:!-#05%VZ9!?\O\<1USR1+$]4#W1/"(D`D^Q
M_UL25L7&('2T) )5LI#S=@)_5\T<1P84/B"3T'WF1E)/1DC:P&ZP355#+F!%
M>$%328@PGY*9D,_ >.^I,5A3JD*9D6[=X')B/!/_)SA/L7PE<U!E4)TQ0X(H
M9-\D,@$B<U)#T<+3<%+3)\/_2>"<T8R"0<$<1[$DGI*I,O\PXIE1_Y0D,CW1
M3Z(IXW+1_]&@(N,]H6CR/")]-R')LF#_]S)1,1.3EG'NT?=Q,*XCU?]/L0*B
MEG%KXPNA7"!587V _VD!'$>-HWXP7@%A(%/ #R'[^W("9%!U!)]D0Q/H@6L"
M_W7S6E&*L8BQ@T@L:\3S.$/[EG'ZH'=K@,*QQC('E!/A_D,P@_"";9'O\P&
M?:!.0_]TM!S><:#N4,$Q7" ?PX4Q_VE1OX,\E5:1[R&5D&N1Z]#]5\!UO$#I
MX%$AW>!Z(V@1_U<!'$<D!6<A=68_9,&R((&?=@#&0U:R<Q!6D20U_=']MU$D
MWE#%PKQ 99/&\1Q'_[5@69(1HHUB8L V-23Q1Q+_7A,E=)3P?P"!,+RAGW$>
M=?\0I6M2%_)5JI$%D$1?(&7PYT/4NK!V$4-%D*"-UH?EWE/Q$Y/AB&8<1RBU
M`-KPI]&@DE&3T$0TS^ PM4#GQ_,9`HAF875ED'>!EW#_R. 4\&C EZ)3IG[P
MF;!^`/\0$?9B'$=^H$UA*:) 8''B_QQ/S,\<9<XK'+G2'QRPU+7MW+)$\_&$
MD%/)@,V CM"GUW3H4/]@0&JAD"Z 07XN8H#8QARPVM7<O]W+,?PZ,!VPWN<<
ML.$#XL_CUW=O$>8'Z TQZ0]ICW?'2-YI$3'[4K=1Q8$L=\]GX_^6<?KR[D+&
M\,;#.D.J( 73_T##GZ,CT<70@C%_P+HCO0#_/:/',3N</_.I@QD"1/"0(O<V
M('GO#H)LZ:"W=)3PDZ#_E* (A;5F"K"38T^R[D(!@/^P$<MA*#'^,K<R@9?V
M0IJ#_Q1%1$6!G]K ("3Z\B"!P<+OG4!/4)#5ZZ%TQF(DM0^!_T/DG 4=TIR&
MB-\<NCRB;-7!F#!;5DLR6.A0<$!OVL#7DJ8Q;/- 8H /0"[]RZ!T;IB3-VJ/
M:Y=S!==T7W,=;I[:P$)2<!TSWB4U?=Z@.''[<P5T#Y$!Z%<T?W8ODS]GXGG?
M:Z(PT,@@4 L:P+T!<W! 5T(U27_>X'! ,G5B@ ?1V'#W@%G_$;$4\*?"R,+M
MP/L1L%(D@-^FE+:AH%>+$_=Q2$>SI97?Q^$/0 ;AA50U0'GW<:%TQQ) T;%%
M(4)53B[10]6_.$)!&<#QC<J'[Z!O02M1__#!13!7L^A4<$ \=1^!\0'_6J(S
M85R1%T 8\T'@%^*GB;^MJ Z &"8<L, R.X!D^;&_^X''LK'6<$ ,D43P<#*#
M_]W@I0#[T16!7W#1X1&B8J#?&S#1X,6@K:\<L%GZP+ =_QEB11#"0F-R$J,D
M<CVRQE+_5N*$07! (Q6]P#-!W="XG]]@(:A8<$!*<DKF(A="#V#\<R(/Q!;0
MCB#)(1W235#_A($A0U,P53.+\$$:(>@M`;]#T>\P*P'^04'@5N IOE>^/<;W
```

```
MKD@?$-%@<9 QWH#(+S,OWF$M,,^0_9!K$9.I@SJ^5SYY$J!(/K\#8(OP9\$Y
MT%R@"Z!D-C'_J+$.\2@S5N0F0&_P'O!55%]%,"/1/T8?,$4P;3+P:/^^5R;Q
M&L#*..V@^G$>XZ4#_P'0A)+40#,2*\30H2]D.O-[<R,C<$/MLT'@/+%"`6'[
MS_G#R#Y#TOXQ(W,'45*]_U2B.),CT51C5#$;,>W Y##O?!/N,Y+QODA!&S#*
M.!&B_:,8/Q4P7* 1HH,D,.!:DO^E`Z]+A',OD6_P"6+#R'ZQ_=W02<HX((#K
M0#=!\X-GP?V2\'B*D0ES'=.HP3UA!/#UOD@^RRIXRQE[`>5/RJ&OE&_*H965
M>1-,(W!(+>'=8X!D;42!$>LR0%*P0@![^.#L47#BP?C@-]!NB3[+F%^9;R#(
M8#,X\N'+*?^;8I7F<W_N`9RG\^-U>/!P_YW_YZ\<H'CAH!OEVR6PXU#^5(U&
M1/**=$YA)E$\\#3![^4_RI+((G& ,\B?R:\<H/P^23*"C&&-58WWX?$?$/-(
M`"U@;B<?9#G"BK*L-WL,!4H@<+/X)9'[2>79/A]GK_N/RCSJR?0B2T,T^$5"
M4NUY"C\+3^)F7U '9!#]L19@24Y-04D1ZM!$053*.3XI7 !<7BA!-#5@,*-Q
MD,& 8"1@$&0A$& !$%$P/C A0& H31!B67#@$&4C2!#A+?9 $?'*.6 1<!!A
M$9$1</0A(6%0)A1!$-$0PA)A*Q P$&$L%7(C$&(B4)A@+R,3XQ: 8#\/<&8O
M$RH2`B-4$&4403(`3#])*UI#)"% 1CT[0",]#^!=0C03U"%$/%<NH"X",\]P
M/28E4#Q"!%E/RCD\1CQ@-*!4530T(!K_3QS"M1!B)Q%P(G! $%,E$&+O'000
M8!,J$& ^%=$6H!("WB$5HAUO'G06H#45D!!3,19 +U@O$6$3&R%8EQ!@3$ 5
M0R03XB(](F_E',%'&00D*Q]%#] 088/*.1T#(TDD-%4;-)@U)"5P\!O@+S0F
MT%,09!:@8"X2!"L00"!&6AA3$8 A74 /<"$'((PA]!!C+#$J,"26*!+@'. F
M%:(D17&@`#)9+3HV+5([`%<M3SE',$ S@#8E23LB62XQ$+0Q11,J(R^P#^ R
M$# -$@!!'\-A`%HH)4TA*H4L6BPS;: N)3!40#1&-"$;H3TBA"%3,1 U4CA6
M&H#QRCDW4$04@/" %D$EP;$2<"PA4!&1%J M$G*6)1 P%, C-Y!@,A A;1:@
M+A!B7J \%T 5X2/U$@!6((M,$, 1<#P`+Z 6*1+@$% H&&,X5"T(5"18F?%4
M+%,H%%4Q81 F-0`E(C T5#DX4",4@'&B+$1D.%7*.2PT/8 X02?G#^ L4!%@
M(U B`B9C._$V*"PA*]5&$&4LP")$/R\&$QH2T!!DVB 1T& J(B)Q`%M.(@]P
M2TC^(1\`.' 0XQ!@,[\TQLHYIS5/-E49!"511I4V$&,`.TM20$M,2RU(*$E:
M=@!84LHY)%0\7@]P7\#P2A: 7>PQ2A6A'P$^(_4?NR$SWB$/<!7P(<,>HB%,
M^II0!"U5* `I63 F10!./%9%1SHG,=$^L#8L3C: 72$B%D'0.#!8.#[ 43]0
M$,#N4>,P$](?`2@LX!!0((L$(4408C,T)3(R\%)1-#(K(!TP/A#],%!4*2$Q
M,& W</!9IYW06.%8,#TE*Q!%'3"L134;4%YP+E-@7?M)1$TP=A I,%.:H#&0
M)2TK*U= +35A$ `H,R1=-S$U*3 C,U4M#\!8P"DU1"4]75 D02U<X"E15] E
M*2\^H#57,%2#6A#*.3%5(2\U7G"",EVA(3-%,2A8\6=7,"[D%T P1!(`$@(F
MTCP602%#+!)*</ 0X2)1=>!'-3O*.24S:$@T7Q:@*@_@#W BA2LP*D8P/DPB
M0$% T1(`3R@I%.%#; #/4*-3`%_0+$,\%,$[%D!02"Q28 ]P-!= )X%1>S!'
M)#%81SU@!9I05&5 4RU78$X`,"<D4"H@/S '3H ?, ]P*58S3U$Z)2VA4EW0
M9X 2X$HA!",[*( X+B%..:93:= _JE$Q$!!09"!0-#E4*P]P1E#!($%8H"),
M(4LK:X E43!A,4 G:) A-A!4##M6#W 1@"8I03G,(E@94#G -CU!0&QJ#UQP
M(E!GL"9@.5$G(")1-A!)(311<#TVKE@60")0_=!"P/ H-A"H029:.H!,/E!5
M;S ,0$!;HG.P5#Y /;HQ\+E-=4 ;L"UP-G4P!% R:;!-(EH[44(OOV A5U G
M:\ CBP]P;T _/=!,)#@WL-XP+7#]D&^P0+!$P/!X$'UHP%$ZD!8PRCE@@!8P
M1 M7L'B@-R)0."<M4 HK-1$G%* H-#93!7) ,C8@.#<X03R)CX$G2-H`2"]$
M*S 8)EU&9[!]$#PQ4M(PRCDF6WT01"N ?-#+/E Y@#8/H#PA,!!\8&G \"0O
M*R!0/I Q\#);]5 [$"3W0$9A1%-@0)5<P#1WD#U6T#E27E"IRCE6,,]0.WD@
M/BM0FBLQ`$%R4'O@(CM5`8-\T'D@*#@B*T-\H*-_<#R 5"5,=]$_&=!!51 J
M.RE+.W. 8/A74CXMVH:0O'!SL#F $B=RH%4DB! ]*"<\5#\T0-3 6Y!T`"@V
MEW? @=!W@#@Q0%5@51!9?9%,/64P8I G;K!&4"@H.4S*.2(4H$3&+%LP<K E
M*#N&(<[ 9XD`2Q 0$%9"@%$04"$R6D9 +2)L0'\@1%@L-CA%X&0@.XH00#MF
M+0Z $9 F6&QJ3@!+HVW V:!1+B,^\&!C\(\9D%Q@/5"B4% C+38@H"TI+"LV
M7&!63B!G%C!X<%Y0.%>%X! 05)!635!*>W V3,L9PZ*P/3!6,4-4/3!D$*17
M3X5P5B.+@#I,X*PA+"]P?D R&Z!-@"&T1T@T4#-X4"HR2&\@Q4$P,Q 0-T!:
M$3#*.4$QT%A=,#<@4O S*E; \#AWT3U?T%<W#E/PH!G@:D$C1C\NV$I--7/0
M;Y B9[",H"=R4 C@<L!%3XMP/5A79B"'6A2@.2^@+/W0,F4:$# ],$ MJC U
M,"%",IB -RQ>/YLA-0%]L"!/4TI+*%,Q_0`Z4"8OH"J@3B&IA+!',6IA7\HY
M0V,@0#PX1DA6/(]@3XF;T3LK+Y!:6E02`-8Q9[""8%]6T#,V$%M04RL`EX!'
M+(4P,G)0+,9+#W#?\%,L5EW0G_"/?FI'8*8P#G!)+$>-$(F/P$TG>R C72M!
M0+M9(!T@1C-0<<"2P"2+<!&E(%!>,A3P.R8USRL0[R"$<7)@-4!NT#^J7D0K
M(3,0;3 P$#J5P"CD3TDX4$\Q@("54&[@HS]0GH%%,D9RX%-P0$XNJL%]<"NA
M-UEG("&_5]"MH#%PB\H;(&O@(#R03_ 04Z">D*40.29WX43%D!!'6# E7R*Y
M$#%@`XB@%)!")3I94D+S0L!X<%!'?D >\(@069#4)44[*C9\L%=M(&K (%]3
M*B$HB:$\) DL4"PO:>!!,TU=S#5&-A"F4"$K6V!;H &MD"A>.45=+U-@52,_
M-#ZU\3X@4?T3*B9]`!72&= NY1:@6' +3Q,B`CQM<"I62BGZ2(0@3DL0%:%E
M4+L(@7#_RC@/T!BB$@-*HI^ 8+"!D/$08RY51,HX$QG%(0P?_\$OQJ/"G^I^
M"8_"_\;/Q]_/PB+)3\(BPA)D7.+@,9"-9)!P`(#.,%QF,\P0OG-VP,(0_E+S
ML,BF?<'P`@#-T ,`$! ``````P`1$ <```! ``<PX/5 ,$[TN@% ``@PX/5
;,$[TN@$>`#T``0````4```!213H@`````&=^
`
end
```

41. RE: [DSP-93:1959] Re: apt source

From: Ron Curry <recurry@insighttec.com>
Date: Mon, 5 Feb 1996 20:53:05 -0800
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <01BAF40B.F2D25C40@expressp5.insighttec.com>
Rendered body type: text/plain

Well, I'd rather see a c3x board developed. It's a more powerful processor
with floating point so you don't have to muck around with all that fixed
point stuff. It's about the same complexity as the c2x that's being used
now.

Ron

From: Greg Jones[SMTP:wd5ivd@tapr.org]
Sent: Sunday, February 04, 1996 8:14 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1959] Re: apt source

There was a dicsusion on the HF SIG about doing a interface board for the
Moto eval board to allow development of the HF modem stuff. Nothing was
ever done beyond outlineg what needed to be done by the group. The few
that
wanted to do it had more than enough experience and had the junk box to
just build it up themself.

Maybe we can get someone to develop what an interface board would be for
the
various TI DSKs unit for amateur use and then TAPR could do up the board
and
make those available as just a board or kit. I would imagine it could be
simple. If we could somehomw keep the same gain stages as the current
dsp-93, that might provide some flexibility with code porting and
development.

That is the kind of thing TAPR can do. Take a simple design and provide
the
mechanism to distribute it to a lot of amateurs.

Cheers - Greg

>
>
> Thanks Greg,
>
> Yes I well understand the investment / time issue.
>
> What I would suggest is that we split the design and build the
> appropriate radio interface onto a separate analogue board. Just about
> all DSP kits/eval units/ production boxes available have and audio in/out
> interface.
>
> Dave.
> ----------
> From: dsp-93[SMTP:dsp-93@tapr.org]
> Sent: Sunday, February 04, 1996 10:39
> To: dsp-93
> Subject: [DSP-93:1953] Re: apt source
>
> This discussion comes up from time to time. The TI development platform
> is
> cheap because it doesn't have all the needed features that the DSP-93 or
> other amateur DSP unit have. No radio interface and the like. For the
> experimental hobbyiest who understands how to make this work and has the
> time to design and build the interfaces -- this is a good way to go. You
> can
> do some neat things with some of the horsepower available with the newer
> development units.
>
> Most of the work in the DSP-93 went into the radio side of the unit not
> the
> DSP side of the unit. I am sure Mark, Ron, and the other folks can speak
> better to this issue.
>
> Anyway -- sorry about the long lead times on the DSP-93 unit. Just no
> way
> for us to buy parts in smaller qty than what we are already doing and
> keep
> the price down to what we have. Just the way it is. Plus the lead time
> on
> parts in small qty are weeks (meaning 15 weeks+ in many cases). I am
> already ordering parts for the April shipment.
>
> We just can't afford to keep the limited cash flow that TAPR has tied up
> in
> inventory for kit sales that come very slow over time. If we could
> afford
> to keep $10,000 or more in assets tied up in kits -- I would love to keep
> DSP-93 units in stock.
>

> We currently only have 10 units sold for this next release. We need a
> minimum of 25 to be able to pay for the parts already ordered..or TAPR
> and
> AMSAT start losing money on the project this go around.
>
> Just some info for everyone.
>
> Cheers - Greg
>
> >
> >
> > Hi Mark and all,
> >
> > Ron is not the only one thinking about that TI development kit. It
> looks
> > very good for ham use.
> >
> > I also know a few people who are put off by the long lead times and
> > pricing for the DSP-93.
> >
> > Should not be an issue which platform is used if the source is
> available.
> >
> >
> > Dave Stirrup [VK2XDS, SMTP: stirrup@aust.net]
> >
> > ----------
> > From: dsp-93[SMTP:dsp-93@tapr.org]
> > Sent: Saturday, February 03, 1996 5:58
> > To: dsp-93
> > Subject: [DSP-93:1941] Re: apt source
> >
> > Ron,
> >
> > Frank Perkins, WB5IPM, is the author. You might consult with him on
> this
> > issue. He is on this list, by the way. Frank wrote a BUNCH of the
> code
> > that is available for the DSP-93.
> >
> > As for a used DSP-93, I have seen one or two go for sale on this list.
>
>
> > If
> > somebody has one for sale, perhaps they will contact you directly.
> >
> > Yes, I have seen others mention that chip. I forget who,
> though...sorry.
> >
> > (by the way, look at the "goodies" your mailer is apparently adding at
>
>
> > the
> > end of each message)
> > ==========
> > At 16:01 2/3/96 -0600, you wrote:
> > >Mark,
> > >That's too bad. I wanted to get it running on a TI c5x DSK - a much
> > lower
> > >cost unit with more processing power than the dsp-93. Could save me a
>
>
> > lot
> > >of time. These can be had for $99 from TI and $50 regularly on the
> net.
> > Are
> > >you the author? Do you know anyone with a used DSP-93 are an unbuilt
>
>
> > kit? I
> > >believe TAPR's next build is a ways off.
> > >
> > >Thx,
> > >Ron
> > >
> > >----------
> > >From: Mark L. Hammond[SMTP:hammond@camel.campbell.edu]
> > >Sent: Saturday, February 03, 1996 6:38 AM
> > >To: dsp-93@tapr.org

```
> > >Subject:       [DSP-93:1938] Re: apt source
> > >
> > >Hi Ron,
> > >
> > >The APT source has not been released.
> > >
> > >At 11:31 2/3/96 -0600, you wrote:
> > >>Is this source available? It doesn't seem to be available on the ftp
>
>
> site.
> > >>
> > >>73's Ron Curry
> > >
> > >
> > >Mark L. Hammond   [KC4EBR]
> > >
> > >
> > >
> > >
> > >begin 600 WINMAIL.DAT
> > >M>)\^(A45`0:0" `$`````````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
> > >M`@````(``@`!!) &``@!```!````# `````,``# #````"P`/#@`````"`?\/
> > >M`0```#T``````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
> > >M<F<`4TU44 !D<W M.3- =&%P<BYO<F<``````'@`", $````%````4TU44 ``
> > >M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
> > >M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
> > >M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
> > >M````! `````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
> > >M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DS.%T@4F4Z(&%P="!S;W5R8V4`
> > >M7PD!!8 #``X```#,!P(``P`-`#H`% `&`#D!`2" `P`.````S <"``,`#0`V
> > >M``L`!@`L`0$)@ $`(0```#8T-T$X03,T,S(U14-&,3%"0T9#,#!!03 P,D8U
> > >M,4$X`#,'`0.0!@#P! ``$@````L`(P```````P`F```````+`"D```````,`
> > >M-@``````0 `Y`*"4,[N"\KH!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DS
> > >M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6``````;KR@KLK-(IZ95XR
> > >M$<^\_ "J`"]1J ``'@`># $````%````4TU44 `````>`!\,`0```!<```!R
> > >M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80X89#QP,`!Q T`@```'@`($ $`
> > >M``!E````34%22RQ42$%44U1/3T)!1$E704Y414143T=%5$E44E5.3DE.1T].
> > >M051)0S581%-++4%-54-(3$]715)#3U-454Y)5%=)5$A-3U)%4%)/0T534TE.
> > >M1U!/5T525$A!3E1(14134 `````"`0D0`0```&<#``!C`P``J04``$Q:1G5;
> > >M%3H4_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``!R
> > >M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
> > >M,Q10"PH449T+\F,`0 70"L!K+ J%$E01@'0G!"!T;V\`(&)A9"X@22"6=P!P
> > >M$]!D'!$@9Q' Q"!I!4!R=6X#`!D0,B "("!A&Z <L&,U@'@@1%-+("T>@=1M
> > >M=1%P(!6@=P20'M"Z;Q/ (!WP';$#\'0?T,L$8!80(!-0;V,'D "0?1XQ<" #
> > >M(1 #D2$0(7!D8'-P+3DS') (46SQ'2!S878A< > 'H$5H/D%0&]F'! '<1R0
> > >M&[ 'D/4A<&,#D6(A<!& '2 "$/$%P"0Y.2: `V$>H@!PD1T@)#4P'=!E9R/0
> > >MV0K ;'D>4B+R;A' ')";!Q A<'D(8"+C874A$)T%L#\?$!Q *;)K;B `WR>!
> > >M*; I("#D'I!U$; =('T?(% C81Z (6$#D1WP8O9U`Q %0&L=L"J0'+ F((9L
> > >M") D,51!4%(;\?TI('@%0"VB'2 $`!Z!'-"S$[ DX68N"H4;1W@;-AT(`&XP
> > >M_ KT+I Q.##!`M%I+3$T- WP#-!S-),+63$V"J #8!/08WT%0"TVMPJ'-6L,
> > >M,#8V1CT#83HWOC8V#((:XR!,,1R02&%M!& GH%M3L$U44#H1@#P30"7@Z0>
> > >M;"X]07 N<3V "8#\=5TW7SAM!F ",#F?.JM5!A!T"'!D,' L.4!EOF(=X K
> > >M*) 90$,0,2;@0#8@-CHS.!2P37,^?SAM5&] OSJK(S1 :P&0$U N!;!G1,\_
> > >MCG5<8FHV<4;O.JM;+*0ZZT0`1'!=!_!E3"!)0 5 GG,(82' ,K\SPS,V-3?S
> > >M&D4V-DAI,G(;-AM'(7#]+P!43U4F02]!),$F( GP^2@!;&55$ F ') Q5@J%
> > >M,D$%0#$Q1& :T#(OI#,O1"$M,%$P,$,0E2FR=S9".@J%/DD<`7YH,!%4E20@
> > >M"W +8 )@99,N,05 9&\'D&XG3T%_"> G0!U!)B%:YRBF`8!PGR0`'; E4%EV
> > >M678W,QOQ_S*!(Z (<$.0,/P*A3M]5F"!3?!+0S1%0E(^9E]/SU#?4>P*A14Q
> > >M`&> ``,`$! `````P`1$ $```! ``<PH*VJ)H+RN@% ``@PH*VJ)H+RN@$>
> > >5`#T``0````4```!213H@`````.UD
> > >`
> > >end
> > >
> > >
> > >
>
>
> Mark L. Hammond   [KC4EBR]
>
>
>
>
>
>
```

42. Re: [DSP-93:1962] Re: apt source

From: Greg Jones <wd5ivd@tapr.org>
Date: Mon, 5 Feb 1996 23:09:09 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602060509.XAA13577@tapr.org>
Rendered body type: text/plain

>
> Well, I'd rather see a c3x board developed. It's a more powerful processor
> with floating point so you don't have to muck around with all that fixed
> point stuff. It's about the same complexity as the c2x that's being used
> now.

All it takes is someone that will spend the time to develop one. That takes
just a focused effort over a year or more of time to complete. TAPR is
always open to proposal for new designs. It goes into a design reivew and
then we look to see if we have the cash flow and potential outcome to handle
the project.

The DSP-93 digital bround would have to be replaced with a new one based on
a c3x. That is one of the nice features of the DSP-93, the ablity of not
having to mess with the anaog board for future upgrsades.

Cheers - Greg

43. RE: [DSP-93:1963] Re: apt source

From: Ron Curry <recurry@insighttec.com>
Date: Mon, 5 Feb 1996 22:11:42 -0800
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <01BAF416.EF39A420@expressp5.insighttec.com>
Rendered body type: text/plain

We have such a board in development - only a prototype working right now.
However it's designed for standalone not for use with DSP-93. It's really
not a very complex board. A year to get it available through TAPR? Maybe
after I retire some day and have lots of time on my hands.

Cheers,
Ron

From: Greg Jones[SMTP:wd5ivd@tapr.org]
Sent: Monday, February 05, 1996 3:15 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1963] Re: apt source

>
> Well, I'd rather see a c3x board developed. It's a more powerful
processor
> with floating point so you don't have to muck around with all that fixed
> point stuff. It's about the same complexity as the c2x that's being used
> now.

All it takes is someone that will spend the time to develop one. That
takes
just a focused effort over a year or more of time to complete. TAPR is
always open to proposal for new designs. It goes into a design reivew and
then we look to see if we have the cash flow and potential outcome to
handle
the project.

The DSP-93 digital bround would have to be replaced with a new one based on
a c3x. That is one of the nice features of the DSP-93, the ablity of not
having to mess with the anaog board for future upgrsades.

Cheers - Greg

44. Re: [DSP-93:1962] Re: apt source

From: Tim Baggett <tim@NMSU.Edu>
Date: Tue, 6 Feb 1996 00:41:10 -0700 (MST)
To: dsp-93@tapr.org
Message-ID: <Pine.SUN.3.91.960206003432.571C-100000@wilma>
Rendered body type: text/plain

> Well, I'd rather see a c3x board developed. It's a more powerful processor
> with floating point so you don't have to muck around with all that fixed
> point stuff. It's about the same complexity as the c2x that's being used
> now.

Would anyone be interested in a board based around a fractional DSP
processor (eg Motorola DSP 56000 series)? In my experience with both TI's
C31 and Motorola's 56002, the fractional arithmetic has both advantages
of integer and floating point.

I don't have any experience with the integer processor used in DSP-93, so
I don't know how it represents numbers. The 56002 is a 24 bit processor
that can represent numbers between -1.0 and 1.0-(2^-23). Since it is all
fractional, I can't think of a time you have to worry too much about
overflows, etc.

Tim, AA5DF

New Mexico State University, Las Cruces, NM
Internet: tim@nmsu.edu
AMPRnet: aa5df@armstrong.ampr.org

45. Re: [DSP-93:1959] Re: apt source

From: dibene@VNET.IBM.COM (Alberto di Bene)
Date: Tue, 6 Feb 96 18:11:06 EST
To: dsp-93@tapr.org
Message-ID: <199602061709.LAA14229@tapr.org>
Rendered body type: text/plain

> Maybe we can get someone to develop what an interface board would be for the
> various TI DSKs unit for amateur use and then TAPR could do up the board and
> make those available as just a board or kit. I would imagine it could be
> simple. If we could somehomw keep the same gain stages as the current
> dsp-93, that might provide some flexibility with code porting and
> development.

Should this become reality, I have ready a denoiser Wiener filter for the
'C50 DSK which works rather better than the W9GR (I know because I have
also the original W9GR), which I could consider sharing with the TAPR
community, if such a kit will materialize. Also ready are a notch filter,
and a continously variable passband, with almost 80 db of attenuation
in the stop band (256-tap FIR). The three filters can be used simultaneously,
given the horse-power of the 'C50.

73 de

Alberto di Bene, I2PHD   dibene@vnet.ibm.com   i2phd@amsat.org
----
     Microsoft gave you windows. IBM gives you the whole house.   )
----

46. Re: [DSP-93:1965] Re: apt source

From: ALLER@MAIL.SYNTRON.COM
Date: Tue, 06 Feb 96 12:38:14 CST
To: dsp-93@tapr.org
Message-ID: <9601068236.AA823639094@MAIL.SYNTRON.COM>
Rendered body type: text/plain

Tim AA5DF wrote:

> >Would anyone be interested in a board based around a fractional DSP
> >processor (eg Motorola DSP 56000 series)? In my experience with both
> > TI's C31 and Motorola's 56002, the fractional arithmetic has
> > both advantages of integer and floating point.

I cannot imagine any advantage other than cost for a 56000 over
a TI 320C30/1. The floating point makes all dsp chores easy and
the full 32-bit 'real computer' architecture of the 'C30 makes
coding large applications possible. Logical operations are much
simpler with the general purpose register set and the C compiler
can generate much better code with the richer instruction set.

I've been using the 'C30 since it came out as both a dsp and a
high-speed controller in a system that has over 100 processors
crunching seismic data and fought off and won several hostile
takeover attempts by the Motorola camp over the years.

Richard Allen, w5sxd@amsat.org

47. Re: [DSP-93:1940] Re: apt source

From: DTownsend@aol.com
Date: Wed, 7 Feb 1996 08:11:25 -0500
To: dsp-93@tapr.org
Message-ID: <960207081124_315060191@mail04.mail.aol.com>
Rendered body type: text/plain

I have a running DSP-93 that I just don't have time to use. Your welcome to
it as you can
probibly make a better contribution than I have. My DSP-93 has been used on
all the
sats but not regularly as I use Wisp and the K9NG modems all the time. Drop
me a line
if your still interested in buying a unit.

DTownsend @ AOL.COM (KE7NR) Don Townsend Phoenix, AZ

---

48. RE: [DSP-93:1968] Re: apt source

From: Ron Curry <recurry@insighttec.com>
Date: Wed, 7 Feb 1996 11:49:09 -0800
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BAF552.4AAD3A60@expressp5.insighttec.com>
Rendered body type: text/plain

Don,
How much do you want for it.

Ron

From: DTownsend@aol.com[SMTP:DTownsend@aol.com]
Sent: Tuesday, February 06, 1996 11:16 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1968] Re: apt source

I have a running DSP-93 that I just don't have time to use. Your welcome to
it as you can
probibly make a better contribution than I have. My DSP-93 has been used on
all the
sats but not regularly as I use Wisp and the K9NG modems all the time. Drop
me a line
if your still interested in buying a unit.

DTownsend @ AOL.COM (KE7NR) Don Townsend Phoenix, AZ


```
begin 600 WINMAIL.DAT
M>)\^(@D3`0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
M`@````(``@`!!) &``@!```!````# ````,``# #`````"P`/#@``````"`?\/
M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
M<F<`4TU44 !D<W M.3- =&%P<BYO<F<``````'@`", $````%````4TU44 ``
M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G``````@$+, $`````5````
M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
M`#$(`02 `0`A````4D4Z(%M$4U M.3,Z,3DV.%T@4F4Z(&%P="!S;W5R8V4`
M8@D!!8 #``X```#,!P(`!P`+`#$`"0`#`"0!`2" `P`.````S <"```<`"P`P
M`!L``P`U`0$)@ $`(0```#5&.$8W0S1&-#,V,4-&,3%"0T9#,#!!03 P,D8U
M,4$X`$T``0.0!@#0!0``*0````L`(P```````P`F```````+`"D```````,`
M-@``````0 `Y`(!'IUB5];H!'@!P``$````A````4D4Z(%M$4U M.3,Z,3DV
M.%T@4F4Z(&%P="!S;W5R8V4``````@%Q``$````6`````;KUE5BG3WR/8F%#
M$<^\_ "J`"]1J ``'@`># $````%````4TU44 `````>`!\,`0```!<```!R
M96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80#CP,_0,`!Q"Z`0``'@`($ $`
M``!E````1$].+$A/5TU50TA$3UE/55=!3E1&3U))5%)/3BTM+2TM+2TM+2U&
M4D]-.D143U=.4T5.1$!!3TQ#3TU33510.D143U=.4T5.1$!!3TQ#3TU314Y4
M.E1515-$05DL1D5"4E5!4@`````"``0D0`0```,L"``#''@``[ 0``$Q:1G62
MI.$,_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&``;#`H,R`\4"``'!R
M0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ%@\R-34"@ J!#;$+8.!N9S$P
M,Q10"PH44:4+\F,`0"!$`B L"H4D2&\'X&UU$7 @9,AO('D(8"!W`' %0.,"
M$ 7 :70N"H4*A0@`!FX=; KT;&DQ.##!`M%I+3$T- WP#-!S(%,+63$V"J #
M8!/08WT%0"TB=PJ'(2L,,"'V1KT#83HC?B'V#((:X%0;L*,`@ GP9$!A!O N
M!:" ;5M33510.B<_?ETC'R0M!F ","5?)FM400I0<V1A>2PE`&4(8G)U"L!Y
M(# V(2Y0,3DY-B\P,3KQ(< @4$TISR0M)T L#P$F:V1S<"TY,T!K`9 34"X%
ML&<P'RK>=1QB:B(Q,C\F:UM$4TY0-$$OL"]@.%T'\&67-W TD 5 <PAA8V4>
M?SD?@S,V(/<:12'V22"I$8!V93I@("Z@;@,`9QD0&N Y<R!T$8 ]\FIF=1/
M'"%N)P5 /C-T#P=Q/X <0$ 092X@6?,(81R096PH$4$R"H4=,'<Z8 0@'&)C
M`' *A2'Q8JYI`F NX # :SYB8A' GQ/0!< %H (P!1!B=4$`_P(@/X(#H#X4
M0; %T"[@/R6?$8 $($5P"?!!<F0@'E?O!T #(#^0.P9S/[!(4490C"!N(A ^
```

```
MD&5G=0M@GG)$T4-A/A!!@2!7! `.<#I@)Z!)TB!+.4[V1QO0!'%M!"!)I4#S
M0;!Z1 -@< J%02$^@!^P;O\[!@:0'%)*84$`2;$+@$6AWP>0$]!(\ N 2L%Y
M/N(^@)\^L!TQ'<8*A2BG($ 4L$!/3"Y#3TU'<"C 2T4W3E(I&N(R`9-492_@
M:&\)\&EX+E#\05H=;#N//)\B!0J%%3$"`%NP``,`$! `````P`1$ ````!
M``<P@/=Y/Y7UN@% ``@P@/=Y/Y7UN@$>``@Z`0```T````T,#@M-S8U+30Y
M-3D`````'@`).@$````-````-3$P+30X-"TR.3<Q`````!X`%3H!````*P``
M`#4Q-C4@26YD97!E;F1E;F-E($1R#0I0;&5A<V%N=&]N+$-!+B Y-#4V-@``
M'@`6.@$````3````26YS:6=H="!496-H;F]L;V=Y```>`!<Z`0````$`````
M````'@`8.@$````!`````````!X`&3H!`````0`````````"``5%# ````(`
M!D4``````@`(10H````"``E%`0```L`"D4!`````P`-10`````"``Y%````
M``(`#T4``````@`010````>`!9%`0```$`````````"P`810`````#`!E%
M`````!X`&D4!````%P```$,Z7%=)3D1/5U-<1V5N97)I8RYC<&4```,`($`
M````"P`A10$````>`"1%`0```!,```!.;VYE("A$:7)E8W0@1&EA;"D``!X`
4/0`!````!0``%)%.B `````MV$`
`
end
```

49. RE: [DSP-93:1968] Re: apt source

From: Ron Curry <recurry@insighttec.com>
Date: Wed, 7 Feb 1996 16:04:47 -0800
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>,
"'Doug Rorem'"
 <rorem@cherokee.eecs.uic.edu>
Message-ID: <01BAF576.018EED00@expressp5.insighttec.com>
Rendered body type: text/plain

Doug,
I believe this should be corrected now. I sent to my mailbox on my Linux box and it looks ok. Seems to be related to installation of some FAX software. Must be another one of the nasty Microsoft bugs (or more likely operator error on my part)

Thx,
Ron

From: Doug Rorem[SMTP:recurry@insighttec.com]
Sent: Wednesday, February 07, 1996 11:49 AM
To: 'dsp-93@tapr.org'
Subject: RE: [DSP-93:1968] Re: apt source

Ron,

Is it possible to turn off the WINMAIL.DAT uuencoded trailer to your email messages? I like to save dsp-93 list messages and they get rather lengthy with this added. From what I can tell (I have a Unix platform that I read my mail on), this [see bottom] 2787 byte addenda has just your reply:

Don,
How much do you want for it.

Ron

with a whole bunch of formating data and mailing address & phone for Insight Technology. I don't believe that anyone can read this (or make any use of it) unless they're using Microsoft Mail. Thanks for the help.

--
Doug Rorem
University of Illinois at Chicago (312)-996-5439 [voice]
EECS Department RM 1120 (312)-413-1065 [fax]
851 S. Morgan Street (708)-996-2226 [pager]
Chicago, IL 60607-7053 rorem@uic.edu

****
****

```
begin 600 WINMAIL.DAT
M>)\^(C ``0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
M`@````(``@`!!) &`"0"```"````# ````,``# %````"P`/#@`````"`?\/
M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
```

```
M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
M````! ````````4,`````P``, 8````+``\.``````(!_P\!````1 ``````
M``"!*Q^DOJ,0&9UN`-T!#U0"`````$1O=6<@4F]R96T`4TU44 !R;W)E;4!C
M:&5R;VME92YE96-S+G5I8RYE9'4`'@`", $````%````4TU44 `````>``,P
M`0```!P```!R;W)E;4!C:&5R;VME92YE96-S+G5I8RYE9'4``P`5# $````#
M`/X/!@```!X``3 !````#0```"=$;W5G(%)O<F5M)P`````"`0LP`0```"$`
M``!33510.E)/4D5-0$-(15)/2T5%+D5%0U,N54E#+D5$50`````#```Y````
M``L`0#H!`````@'V#P$````$````````!HE<`0B !P`8````25!-+DUI8W)O
M<V]F="!-86EL+DYO=&4`,0@!!( !`"$```!213H@6T134"TY,SHQ.38X72!2
M93H@87!T('-O=7)C90!B"0$%@ ,`#@```,P'`@`'`! `! `O``,`(@$!(( #
M``X```#,!P(`!P`0``(`*P`#`!P!`0F `0`A````,D)#1D0P-S<V.#8Q0T8Q
M,4)#1D,P,$%!,# R1C4Q03@`1@<!`Y &`(0&```2````"P`C```````#`"8`
M``````L`*0```````P`V``````! `#D`8(OY#KGUN@$>`' ``0```"$```!2
M13H@6T134"TY,SHQ.38X72!293H@87!T('-O=7)C90`````"`7$``0```!L`
M```!NO656*=/?(]B84,1S[S\`*H`+U&H``C;)D0`'@`># $````%````4TU4
M4 `````>`!\,`0```!<```!R96-U<G)Y0&EN<VEG:'1T96,N8V]M```#``80
M@7@J9P,`!Q#?`P``'@`($ $```!E````1$]51RQ)0D5,2456151(25-32$]5
M3$1"14-/4E)%0U1%1$Y/5TE314Y45$]-64U!24Q"3UA/3DU93$E.55A"3UA!
M3D1)5$Q/3TM33TM3145-4U1/0D5214Q!5$5$5$])3E-400`````"`0D0`0``
M`/8$``#R! ``00@``$Q:1G6>S,M7_P`*`0\"%0*H!>L"@P!0`O()`@!C: K
M<V5T,C<&``;#`H,R`\4"``!R0G$1XG-T96T"@S-W`N0'$P* ?0J ",\)V3OQ
M%@\R-34"@ J!#;$+8.!N9S$P,Q10"PH4424+\F,`0"!$"&!G+$$*A4D@8F5L
M")!V$&4@=&@$`"!S:&D(8&QD&\$@!:$6$&/#$] <\&YO=RX;H1&PPP(P'$!O
M(&UY'L +<+)L!N!X( (@'L),"X#>=1]@'T(`<!SP:05 %:#\;VL$("$0'A &
M8!/@!"#_'J$=$180"V =HAZA"X 3P,L'0")Q:1^!;V8<D -PL1PP1D%8(_$!
M@'<*P')E'A!-=1/ '0(`<&]_'% $D!]Q'# CT27A'=!ATQ/ 'N!-:04`;R22
M&\![&Q $("@%L01@%A @X&GF:QO@'N!O< 20(H %L9\$D -@)A(>P@JQ="D*
MA;$*A51H>!LV" !N*MPC"O0;\#$X, +1:2UX,30T#? ,T"YS"UDQGC8*H -@
M$] =D" M,)>O"H<O2PPP,!9&`V$Z,9X?,!8,@AKC!_$6$&U;4S!-5% Z'7$(
M<')Y8D C`6EG: ) !9 N^06@;5TQ/S)-!F ",#-_#32+5PF )D!S9&%YPBPD
M0&5B<G4*P![@A# W/' Q.3DV/5#0,3HT.12P33?/,DT,5&\Z#S2+)V1S<+ M
M.3- `9 34"X%L(QG)SX_.-YU8FH=@1- 7S2+4D5%L%M$4XI00G$Z/6 V.%T'
M\#YE1;!"P 5 ) `(<&-E\RR?+:,S-B\7&D4P%BQAWQLV"H4;H 0@(,%P)X `
MD'<"8!PQ'K!T"' CLB:$5P!)3DU!24PN1-!!5"!U"E!N!: -L+\BL2E@`Q F
M`1Z@"H5Y"&&/*; ?`A[ !Y!S86<'D/X_&Z$HPAZ24P`<(4)$*+&_)5%2UB!S
M)>$>X%,@= J%_REA)?).@!D0'% >X /P'%#Y'$1A9%#1'A S,E? $8#[!4 ;
ML&,#D1/0(U H(!NPHQ& '"%A(%4#`'@*A?\+40`P!;!9$!Q065,6$%APVQ[&
M'W$I/' <4UL1L!PP!P;@`D WD2 R-S@WW1O >1/06&,@D&$*A1& /00@:B5"
M4B,6$ M0>3JW*MP:\$RW2!WP'L!U$7#_5% >L%(A5\ `< 5 6\$@L?XN*MPL
M;U?36K!9, ;P7B'^=5"@6 `CT5O"(W$9$%10_R* 6K @@A\":()8<180!!'^
M)BIP'+ F05O!&T8VY"N@S060:!W@%:!G>1X28Z#\;B<E8AOV65$`<%(@)D'O
M6:)<@QQ3*#-A*. *A6X!KU!@$; CPB# *5!@;DZ >P015?(G*)$E0&B")TA-
M_Q\1'A KL !P(2%D8B:B)?#\;'!DS0J%,1<U6 J%6M'?'" 1H"# *1$CX$DC
M4 N MF]80@5 0QQ@6:!G'K#!><8H,S$R*4)P/8"P+34T,SWP1\!V>."C27 W
MMD5%0P7P1&$P[RJ1!X ><0?P33VA`=!YQQ%YS30Q,RY@,#8UD7LQ9F%X-[8X
M-1K0[E,E$4,!`Y%341 )X'T1HX'O>B(W,#AZE#*#T.\]D$? "K!3('(WMGE5
M/'!-4 `@2P!+`#<M@T UGU2PAG]-H"GA$^! =2=0ZBX)@'4JW"J);XGEB/^_
MBA]T_TIO2W\K-A4Q`)$````#`! 0``````,`$1 `````0 `',,#R/\6X];H!
B0 `(,,#R/\6X];H!'@`]``$````%````4D4Z( `````"`0``
`
end
```

50. [Fwd: FS: TI C5x DSP Starter Kits (DSKs)]

From: Ron Curry <recurry@insighttec.com>
Date: Wed, 07 Feb 1996 16:50:21 -0800
To: dsp-93@tapr.org
Message-ID: <311948CD.72D2@insighttec.com>
Rendered body type: text/plain

Thought you all might be interested....

51. Re: [DSP-93:1968] Re: apt source

From: frank wesley <fdw@hal-pc.org>
Date: Wed, 7 Feb 1996 18:48:15 -0559
To: dsp-93@tapr.org, dsp-93@tapr.org
Message-ID: <199602080047.SAA03349@hal-pc.org>
Rendered body type: text/plain

At 07:16 AM 2/7/96 -0600, DTownsend@aol.com wrote:
>I have a running DSP-93 that I just don't have time to use. Your welcome to
>it as you can
>probibly make a better contribution than I have. My DSP-93 has been used on
>all the
>sats but not regularly as I use Wisp and the K9NG modems all the time. Drop
>me a line
>if your still interested in buying a unit.
>
>DTownsend @ AOL.COM (KE7NR) Don Townsend Phoenix, AZ
>

>Read your comments abt the K9ng modems. Where can you get info about them?
>
Name: Frank Wesley
E-Mail: fdw@hal-pc.org

52. dsp93/IC820 on PACSATS

From: "Bob Smith" <bsmith@msn.com>
Date: Thu, 8 Feb 96 01:00:15 UT
To: dsp-93@tapr.org
Message-ID: <UPMAIL01.199602080100410864@msn.com>
Rendered body type: text/plain

Interested in anyone working the PACSATS (AO-16) with the IC 820 and DSP-93.
Especially interested in experiences using the tuning function and how you
overcome the mic intervals. Also any help w/ WISP would be most welcome.

I tried to find this out myself but could not find any lit.

Thanks mucho in advance.

73 de..

Bob Smith   N3FTU
Suwanee, GA
mailto: bsmith@msn.com
http://www.wp.com/~bsmith
ARRL, TAPR

53. Re: [DSP-93:1971] [Fwd: FS: TI C5x DSP Starter Kits (DSKs)]

From: xbrucex@popmail.mcs.net (xbrucex)
Date: Thu, 08 Feb 1996 21:51:31 -0600
To: dsp-93@tapr.org
Message-ID: <m0tkjss-000VtIC@mailbox.mcs.com>
Rendered body type: text/plain

I may be interested in one or two of the DPS evaluation kits. Do you still
have any available?

Bruce (xbrucex@mcs.net)

>This is a multi-part message in MIME format.
>
>--------------EF16403B5F
>Content-Type: text/plain; charset=us-ascii
>Content-Transfer-Encoding: 7bit
>
>Thought you all might be interested....
>
>--------------EF16403B5F
>Content-Type: message/rfc822
>Content-Disposition: inline
>
>Newsgroups: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment
>Path:
news.internex.net!newshub.internex.net!viper.inow.com!ns2.mainstreet.net!aim
net.com!news.sprintlink.net!howland.reston.ans.net!ix.netcom.com!netcom.com!cole
>From: cole@netcom.com (Randy Cole)
>Subject: FS: TI C5x DSP Starter Kits (DSKs)
>Message-ID: <coleDLxDon.JIG@netcom.com>
>Organization: NETCOM On-line Communication Services (408 261-4700 guest)
>Distribution: na
>Date: Mon, 29 Jan 1996 04:26:47 GMT
>Lines: 29
>Sender: cole@netcom11.netcom.com
>Xref: news.internex.net rec.radio.amateur.digital.misc:1582
rec.radio.amateur.equipment:3823
>MIME-Version: 1.0
>Content-Transfer-Encoding: quoted-printable
>
>I have several TI 320C5x DSKs (DSP Starter Kits) for sale. The TI part=20
>number is TMDS3200051. They are all brand new and have never been=20
>opened.
>
>These kits are designed for students, experimenters, and developers who=20
>need a simple, low-cost way to prototype DSP-based applications for=20
>the TI 320C5x series of DSP chips. The kit includes a small (2.5" x 4")=20
>PC board with a TMS320C50 processor, a TI Analog Interface Circuit=20
>(AIC) chip with 14-bit A/D and D/A capable of sample rates to 19.2 K=20
>samples/sec, RCA jacks for analog I/O, and a 9-pin RS-232 host interface.

>The kit also includes a simple assembler, loader and debugger for the
>PC, a kit manual and a TMS320C5x manual.
>
>The latest versions of the software as well as several user-written demo=20
>programs can be downloaded from the TI BBS, accessible via TI=92s FTP hos=
>t=20
>ftp.ti.com, in directory /mirrors/tms320bbs. The board requires a 9 volt
>*AC* power supply capable of >250 ma. A 9 VAC 780 ma supply with the rig=
>ht=20
>plug is available for $8.99 from Radio Shack (Part # 273-1630).
>
>TI sells these through distributors for $99, and purchasing them through
>distributors can be a hassle. I'll sell them for $60 each shipped within
>the US. Terms: Price is firm. The units are guaranteed against DOA.
>Immediate shipment if payment is by USPS or other money order or cashier'=
>s
>check. Personal checks are OK but I'll wait for them to clear.
>No CODs, please.
>
>Randy Cole
>KN6W
>cole@netcom.com
>
>--------------EF16403B5F--
>
>

54. RE: [DSP-93:1974] Re: [Fwd: FS: TI C5x DSP Starter Kits (DSKs)]

From: Ron Curry <recurry@insighttec.com>
Date: Thu, 8 Feb 1996 21:45:02 -0800
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <01BAF66E.B4056D80@expressp5.insighttec.com>
Rendered body type: text/plain

Bruce,
Please read the message. I was only forwarding something I found on USENET.

Ron Curry

From: xbrucex[SMTP:xbrucex@popmail.mcs.net]
Sent: Thursday, February 08, 1996 2:04 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1974] Re: [Fwd: FS: TI C5x DSP Starter Kits (DSKs)]

I may be interested in one or two of the DPS evaluation kits. Do you still
have any available?

Bruce (xbrucex@mcs.net)

>Newsgroups: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment
>Path:
news.internex.net!newshub.internex.net!viper.inow.com!ns2.mainstreet.net!aim
net.com!news.sprintlink.net!howland.reston.ans.net!ix.netcom.com!netcom.com!cole
>From: cole@netcom.com (Randy Cole)
>Subject: FS: TI C5x DSP Starter Kits (DSKs)
>Message-ID: <coleDLxDon.JIG@netcom.com>
>Organization: NETCOM On-line Communication Services (408 261-4700 guest)
>Distribution: na
>Date: Mon, 29 Jan 1996 04:26:47 GMT
>Lines: 29
>Sender: cole@netcom11.netcom.com
>Xref: news.internex.net rec.radio.amateur.digital.misc:1582
rec.radio.amateur.equipment:3823
>MIME-Version: 1.0
>Content-Transfer-Encoding: quoted-printable
>
>I have several TI 320C5x DSKs (DSP Starter Kits) for sale. The TI part=20
>number is TMDS3200051. They are all brand new and have never been=20
>opened.
>
>These kits are designed for students, experimenters, and developers who=20
>need a simple, low-cost way to prototype DSP-based applications for=20
>the TI 320C5x series of DSP chips. The kit includes a small (2.5" x 4")=20
>PC board with a TMS320C50 processor, a TI Analog Interface Circuit=20
>(AIC) chip with 14-bit A/D and D/A capable of sample rates to 19.2 K=20
>samples/sec, RCA jacks for analog I/O, and a 9-pin RS-232 host interface.
>The kit also includes a simple assembler, loader and debugger for the

>PC, a kit manual and a TMS320C5x manual.
>
>The latest versions of the software as well as several user-written demo=20
>programs can be downloaded from the TI BBS, accessible via TI=92s FTP hos=
>t=20
>ftp.ti.com, in directory /mirrors/tms320bbs. The board requires a 9 volt
>*AC* power supply capable of >250 ma. A 9 VAC 780 ma supply with the rig=
>ht=20
>plug is available for $8.99 from Radio Shack (Part # 273-1630).
>
>TI sells these through distributors for $99, and purchasing them through
>distributors can be a hassle. I'll sell them for $60 each shipped within
>the US. Terms: Price is firm. The units are guaranteed against DOA.
>Immediate shipment if payment is by USPS or other money order or cashier'=
>s
>check. Personal checks are OK but I'll wait for them to clear.
>No CODs, please.
>
>Randy Cole
>KN6W
>cole@netcom.com
>
>--------------EF16403B5F--
>
>

55. Re: [DSP-93:1972] Re: apt source

From: DTownsend@aol.com
Date: Sat, 10 Feb 1996 09:16:56 -0500
To: dsp-93@tapr.org
Message-ID: <960210091652_140641667@mail04.mail.aol.com>
Rendered body type: text/plain

Reply to Frank Westley re: K9ng 9600 Modems:

I got mine from TAPR back in "90. I believe it has been replaced with the
TAPR 9600 modem though.

I have a DSP-93 for sale for $400. It is built and it work fine.

D.Townsed @ AOL.COM

56. unsubscribe

From: Ken Case <75106.1017@compuserve.com>
Date: 11 Feb 96 17:14:15 EST
To: <dsp-93@tapr.org>
Message-ID: <960211221414_75106.1017_CHR64-1@CompuServe.COM>
Rendered body type: text/plain

FROM Ken Case 75106.1017
to dsp-93@tapr.org
UNSUBSCRIBE listserv

go mail
go

57. mail test->ignore this message

From: hammond@camel.campbell.edu (Mark L. Hammond)
Date: Thu, 15 Feb 1996 08:51:48 -0500 (EST)
To: dsp-93@tapr.org
Message-ID: <v01540b00ad48a52e7394@[152.38.1.2]>
Rendered body type: text/plain

test of mail list

Mark L. Hammond [KC4EBR]
Campbell University

58. Re: [DSP-93:1978] mail test->ignore this message

From: DNoto@USCCMAIL.uscc.bms.com
Date: Fri, 16 Feb 1996 07:47:45 -0600
To: "   -   (052)dsp-93(a)tapr.org" <dsp-93@tapr.org>
Message-ID: <000470000448265800002*@MHS>
Rendered body type: text/plain

I have received

```
_____________________________ Delimitatore di risposta _____________________________
Oggetto: [DSP-93:1978] mail test->ignore this message
Autore:  dsp-93@tapr.org in Internet/X400
Data:    15/02/96 9.10


test of mail list

--------------------------
Mark L. Hammond [KC4EBR]
Campbell University
```

59. Re: [DSP-93:1978] mail test->ignore this message

From: fperkins@onramp.net
Date: Fri, 16 Feb 1996 22:10:19 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602170410.WAA14543@mailhost.onramp.net>
Rendered body type: text/plain

OK, I'll ignore it :-).

60. TNCINIT.EXE uploaded

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sun, 18 Feb 1996 08:18:02 -0600
To: dsp-93@tapr.org
Message-ID: <v02130500ad4ce42da0e6@[204.251.33.15]>
Rendered body type: text/plain

I have uploaded the (DOS) program TNCINIT.EXE to the dsp93 upload
directory. Mark will move it to the util directory (won't he, Mark).

This file can be executed from a .BAT file and provides a very flexible way
to send characters to the serial port. Delays are provided. Also control
characters.

This is ideal for setting up the PacComm DSP/TNC as it makes it possible to
go in and out of PASSTHRU.

The following Help is accessed by executing TNCINIT without parameters.

==========

```
TNCINIT     Kissmode switching or New Configuration of a
V 9.0       TAPR or WA8DED/TF-SW eprom from Initialisation file.

(c)DL5FBD

  Call:         TNCINIT Parameter list

The Parameter requires a ":" separator before the value.
The Filename must be given, all other Parameters are
started with default values as shown in brackets ( ) below.

 F:File         Name of the Intialisation file
 C:Port         Serial Port  COMx                  (1)
 C:Port,Adr,IRQ complete Port Definition
 B:Baudrate     Baudrate                           (9600)
 W:Word length  Word length 7,8                    (8)
 P:Parity       Parity K=none, G=even, U=odd       (K)
 SB:Stopbit     Stopbits 1,2                       (1)
 H:Handshake    Handshake K=none H=hardware S=soft. (K)
 S:TNCSoft      Software Ident. "TAPR","TF"        (TAPR)
 E:             Data Echo on Monitor               (no Echo)
 U:hh,mm        UTC-Time offset in Hours, Minutes   (0,0)

Parameter File Command Lines are able to be established. With
these Command Lines, TNCINIT-Actions can be requested, Delay
Times redefined or executed.

 D:Time (ms)     General Delay in ms
                 This Delay time can be requested at optional
                 positions in the Parameter File and will be
                 awaited directly.
 CD:Time (ms)    Character Delay in ms
                 This Delay time will be observed between the
                 transmission of each Character.
 LD:Time (ms)    Line Delay in ms
                 This Delay time will be executed at the end of a
```

```
                transferred line and gives the TNC extra time
                for the interpretation and execution.
 K:             Kiss Reset Command
                Carries out the KISS-Reset command dependant on
                the WA8DED/TF-SW or TAPR-SW.
 U:             Time and Date Transfer.
 U:hh,mm        Time with Offset (Hrs,Min) from UTC
                Transfer the actual PC-sytem time to TNC.
 E:ON E:OFF     Switch Echo on "ON" or off "OFF"
                Serves in the testing of Delaytime parameter
 BR:Time (ms)   Sends, for the indicated time a Break Signal.
 BY:xx,yy,zz,.. Sends a series of Bytes in Hexadecimal ($n) or
                Decimal. Each is separated by commas as shown.
                It is therefore possible to transmit to the
                TNC Ctrl-Characters
 CL:ON CL:OFF   CL:ON cause the TNC to be toggled into the Command
                Mode before the transfer of a line.
                CL:OFF switches off this toggle, eg. for the
                Initialisation of TNC-Mailboxes (PK232 et.al)
 HR:            Toggles a TNC with WA8DED/TF-Software out of Host
                Mode into the Terminal Mode.
 L:xx           Targets Set/Reset of the Handshake controls
                RTS, DTS by means of a Control Byte in the form
                DTR= Bit 1 and RTS= Bit 0 for RS232-Multiplex
                hardware such as eg.  TNCIO-Card
                Certainly the dependancy xx for the TNC
                Number at the Multiplexer must be probed.
 : Remark       Add a Remark to the Documentation. A Remark line
                is not interpreted by TNCINIT when preceeded
                by a colon (:) at the beginning of a line.

Independent of this, a remark may follow a TNCINIT-Command
if it is separated from the command by at least one space or a
Tabulator character.

e.g.   CD:25     25ms  Character Delay
       LD:200    200ms Line Delay

These Comments make an Initialisation file understandable and
therefore to easy to manipulate.

Typical example for COM3 Address=338H IRQ=2 with 19200 Bd.
and the Initialisation file KISSOFF.DAT for TAPR-SW.

TNCINIT C:3,$338,2 B:19200 S:TAPR F:KISSOFF.DAT

The Initialisation file KISSOFF.DAT can look as follows:
   : Demonstration of a KISS-Reset and Intialisation file
   CD:20            Character Delay   20ms
   LD:100           Command Delay     100ms
   K:               KISS-Reset sent
   D:2000           After KISS-Reset 2s Initialisation pause
   AWLEN 8
   PARITY 0
   MYCALL DL5FBD
   RESTART
   D:2000           After RESTART 2s Initialisation pause

Here the Transfer Parameters are: 8 Bit, no Parity and
1 Stopbit which are the predefined standard in TNCINIT.


=================


Ron W5RKN

also:
rparsons@bga.com
```

61. TNCINIT.EXE moved to ~dsp93/util

```
From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 18 Feb 1996 20:01:32 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960218200132.00691304@camel.campbell.edu>
Rendered body type: text/plain
```

Yes, he will, and has. You can find it under

~dsp93/util/TNCINIT.EXE

Thanks, Ron. Looks like a good utility for getting the PK232 in and out of
KISS mode, too!

At 08:32 2/18/96 -0600, you wrote:
>I have uploaded the (DOS) program TNCINIT.EXE to the dsp93 upload
>directory. Mark will move it to the util directory (won't he, Mark).
>

Mark L. Hammond   [KC4EBR]

62. FW: Re: TI TM320C5x Eval Kit

From: bobsmith@mail.i2020.net (Robert L. Smith)
Date: Tue, 20 Feb 96 17:31:21 EST
To: dsp-93@tapr.org
Message-ID: <Chameleon.960220174212.bobsmith@>
Rendered body type: text/plain

To All ---

In a recent thread a number of readers experssed interest in the T.I. TM320C5x
Evaluation Kit. After a few messages I tracked down the source. The essential
info is included below. I recently ordered one of these and am pleased to say
that Randy performed diligently. The kit looks very good and should be very
useful to serious experimenters.

Please forward all queries to Randy. I have absolutely no vested interest in this
offer and make no personal guarentees whatsoever. I am merely reporting the
facts to those who may be interested.

  73 de bob, wa4ypv   (bobsmith@i2020.net)

>Bob,
>
>Thanks for the interest. Here's a canned file with the info you need.
>
>73,
>Randy
>KN6W
>
>Thanks for your interest in the TI C5x DSK. FYI, I acquired the kits
>from a Dallas surplus electronics dealer, who had purchased them at a TI
>surplus auction. The kits were apparently shipped to a large
>electronics distributor and then returned to TI in Dallas. Rather than
>ship them to TI Houston where they are made and stocked, TI chose to
>sell them as surplus. They are current product, brand new and unopened.
>
>If you want to purchase a kit, please send a check or money order for
>US $60 to:
>
>   Randy Cole
>   3235 Cole Ave. #75
>   Dallas, TX 75204
>
>I'll ship the kit via US Postal Service Priority Mail, which will get it
>to you two or three days. If you send a money order or certified check,
>I'll ship it ASAP, which will be the next business day unless I'm out of
>town on a business trip. If you send a personal check I'll wait for it
>to clear and then ship the kit.
>
>Please be sure to specify the preferred shipping address.
>
>Thanks,
>
>Randy Cole
>214/871-8995
>cole@netcom.com
>
>
>

  Happy DSP'ing to all.

  -----------Avoid computer viruses, practice safe hex -------------
  Robert L. (Bob) Smith   804/745-1065   bobsmith@i2020.net
  Smith Machine Works, Inc.   wa4ypv@w4za.ampr.org

63. Re: TI TM320C5x Eval Kit

From: "Steven R. Bible" <srbible@mindport.net>
Date: Tue, 20 Feb 1996 20:24:55 -0500
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960221012455.006736c0@mindport.net>
Rendered body type: text/plain

I second this motion. I received my DSK today. Thanks to Randy for coming
through so well. Again, I have no connection, just a happy experimentor.

I do have one question for the group, what differences, if any, are there
between the TMS320C26 DSK and the present TMS320C50? Can I use the programs
written for the 'C26 DSK on the C5x DSK?

Thanks, Steve N7HPR

>To All ---
>
>In a recent thread a number of readers experssed interest in the T.I. TM320C5x
>Evaluation Kit. After a few messages I tracked down the source. The essential
>info is included below. I recently ordered one of these and am pleased to say
>that Randy performed diligently. The kit looks very good and should be very
>useful to serious experimenters.
>
>Please forward all queries to Randy. I have absolutely no vested interest
in this
>offer and make no personal guarentees whatsoever. I am merely reporting the
>facts to those who may be interested.
>
> 73 de bob, wa4ypv   (bobsmith@i2020.net)
>
>>Bob,

 - Steve, N7HPR

srbible@mindport.net
n7hpr@amsat.org
n7hpr@tapr.org

64. Re: [DSP-93:1984] Re: TI TM320C5x Eval Kit

From: dibene@VNET.IBM.COM (Alberto di Bene)
Date: Wed, 21 Feb 96 10:04:40 EST
To: SRBIBLE@MINDPORT.NET
Cc: dsp-93@tapr.org
Message-ID: <199602210917.DAA16049@tapr.org>
Rendered body type: text/plain

> I do have one question for the group, what differences, if any, are there
> between the TMS320C26 DSK and the present TMS320C50? Can I use the programs
> written for the 'C26 DSK on the C5x DSK?

 Unfortunately not. The 'C50 has more than 10 kwords of RAM on-chip, while
 the 'C26 has a mere 512 words, and the layout is different. The boot ROM
 of the 'C26 is totally different from that of the 'C50. For serious work,
 given also the similarity in price, I would tend not to consider the 'C26 DSK.

 For those who have acquired a 'C50 DSK I suggest to have a look at the TI BBS,
 reacheable via the Internet at ftp.ti.com/mirrors/tms320bbs via anonymous
 ftp. A real source of precious information and code for the TMS320 DSP
 family.

 The usual disclaimers apply ; no connection whatsoever with TI (my employer
 would raise more than an eyebrow in such a case.... :-). I just happen to
 like more the TMS320 family over the 5600x one.

Alberto di Bene   dibene@vnet.ibm.com   i2phd@amsat.org

     Microsoft gave you windows. IBM gives you the whole house.   )
----

65. (no subject)

From: Jabi Aguirre <govier02@sarenet.es>
Date: Wed, 21 Feb 1996 11:34:45 +0100

To: dsp-93@tapr.org
Message-ID: <9602211031.AA02050@sarenet.es>
Rendered body type: text/plain

Subscribe

66. Re: TI TM320C5x Eval Kit

From: Marc Vermeersch <mvermeer@cisco.com>
Date: Wed, 21 Feb 1996 12:07:40 +0100
To: srbible@mindport.net, dsp-93@tapr.org
Message-ID: <312AFCFC.19A13460@cisco.com>
Rendered body type: text/plain

Hi Steve,

I didn't actually verify if it has the answer to your specific question but if you
have access to the www, then

   http://www.ti.com/sc/docs/dsps/dsphome.htm

contains a lot of good information on the TI chips.

Steven R. Bible wrote:
>
> I second this motion. I received my DSK today. Thanks to Randy for coming
> through so well. Again, I have no connection, just a happy experimentor.
>
> I do have one question for the group, what differences, if any, are there
> between the TMS320C26 DSK and the present TMS320C50? Can I use the programs
> written for the 'C26 DSK on the C5x DSK?

[snip]

--
/\/\arc, on1amv.

67. Re: [DSP-93:1985] Re: TI TM320C5x Eval Kit

From: "Steven R. Bible" <srbible@mindport.net>
Date: Wed, 21 Feb 1996 06:58:23 -0500
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960221115823.00683114@mindport.net>
Rendered body type: text/plain

At 03:21 AM 2/21/96 -0600, you wrote:
>> I do have one question for the group, what differences, if any, are there
>> between the TMS320C26 DSK and the present TMS320C50? Can I use the programs
>> written for the 'C26 DSK on the C5x DSK?
>
> Unfortunately not. The 'C50 has more than 10 kwords of RAM on-chip, while
> the 'C26 has a mere 512 words, and the layout is different. The boot ROM
> of the 'C26 is totally different from that of the 'C50. For serious work,
> given also the similarity in price, I would tend not to consider the 'C26 DSK.
>
> For those who have acquired a 'C50 DSK I suggest to have a look at the TI BBS,
> reacheable via the Internet at ftp.ti.com/mirrors/tms320bbs via anonymous
> ftp. A real source of precious information and code for the TMS320 DSP
> family.

Thank your for your reply Alberto. Darn the bad luck. There's so many neat
things that Johan has written for the 'C26 DSK that I would like to try them
on the 'C5x DSK. Of course, many of these programs Johan has ported over to
the Motorola EVM. Are there any papers on how to port 'C26 code over to
'C5x? I am trying to avoid having to study the 'C26 code to closely to port
the programs over.

Thanks again,

 - Steve, N7HPR

srbible@mindport.net
n7hpr@amsat.org
n7hpr@tapr.org

68. Re: [DSP-93:1986]

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Wed, 21 Feb 1996 07:06:59 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b01ad50c922151f@[204.251.33.20]>
Rendered body type: text/plain

>Subscribe

To subscribe to these groups:
1. Send e-mail to 'listserv@tapr.org'
2. Subject 'Request'
3. Message body:
      subscribe dsp-93 First_Name Last_Name

Ron W5RKN

also:
rparsons@bga.com

69. Re: [DSP-93:1988] Re: TI TM320C5x Eval Kit

From: dibene@VNET.IBM.COM (Alberto di Bene)
Date: Wed, 21 Feb 96 14:14:24 EST
To: SRBIBLE@MINDPORT.NET
Cc: dsp-93@tapr.org
Message-ID: <199602211328.HAA23927@tapr.org>
Rendered body type: text/plain

In a previous message, you wrote:

>   .... Are there any papers on how to port 'C26 code over to
> 'C5x? I am trying to avoid having to study the 'C26 code to closely to port
> the programs over.

 As far as I know, I'm afraid not. Anyway the 'C26 machine language is a
 proper subset of that of the 'C50. You just have to understand the added
 functionalities, that, in many cases, allow you to do the same thing in a
 lot less instructions. Much more important is to take care of the differen-
 ces between the two DSKs. I never programmed on the 'C26 DSK, only on the
 'C50 one, so I'm not telling this from experience, but from what I happened
 to read every now and then.

 If you get hold of the 'C50 DSK, first thing to do is to upgrade the toy
 assembler that come with it to Vers. 1.03 found on the TI BBS. Not that
 the latter version is much better, it still remain a toy assembler, but
 a few of the more tragic bugs that plagued the previous version have been
 fixed. In the same vein, don't trust too much the debugger. More often than
 not, it needs itself a meta-debugger... it's a pity that a firm that can
 produce so fine hardware, delivers it with much lower-quality software.

Alberto di Bene   dibene@vnet.ibm.com   i2phd@amsat.org

     Microsoft gave you windows. IBM gives you the whole house.   )
----

70. RE: [DSP-93:1988] Re: TI TM320C5x Eval Kit

From: Ron Curry <recurry@insighttec.com>
Date: Wed, 21 Feb 1996 20:09:19 -0800
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <01BB0098.7CB6BBC0@expressp5.insighttec.com>
Rendered body type: text/plain

Steve,
Alberto is correct on the limitations of the c26 but it he represented it
as not being compatible The c26 is a subset of the c50. Software is fairly
easy to modify to run on the c50 you just need source. I've made several
software packages designed for c26 run on a c50.

Ron

From: Steven R. Bible[SMTP:srbible@mindport.net]
Sent: Tuesday, February 20, 1996 10:09 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1988] Re: TI TM320C5x Eval Kit

At 03:21 AM 2/21/96 -0600, you wrote:
>> I do have one question for the group, what differences, if any, are

there
>> between the TMS320C26 DSK and the present TMS320C50? Can I use the
programs
>> written for the 'C26 DSK on the C5x DSK?
>
> Unfortunately not. The 'C50 has more than 10 kwords of RAM on-chip, while
> the 'C26 has a mere 512 words, and the layout is different. The boot ROM
> of the 'C26 is totally different from that of the 'C50. For serious work,
> given also the similarity in price, I would tend not to consider the 'C26
DSK.
>
> For those who have acquired a 'C50 DSK I suggest to have a look at the TI
BBS,
> reacheable via the Internet at ftp.ti.com/mirrors/tms320bbs via
anonymous
> ftp. A real source of precious information and code for the TMS320 DSP
> family.

Thank your for your reply Alberto. Darn the bad luck. There's so many
neat
things that Johan has written for the 'C26 DSK that I would like to try
them
on the 'C5x DSK. Of course, many of these programs Johan has ported over
to
the Motorola EVM. Are there any papers on how to port 'C26 code over to
'C5x? I am trying to avoid having to study the 'C26 code to closely to
port
the programs over.

Thanks again,

 - Steve, N7HPR

srbible@mindport.net
n7hpr@amsat.org
n7hpr@tapr.org

71. Ok!

From: Jon <jandrews@i-2000.com>
Date: Sun, 25 Feb 1996 11:28:43 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BB0374.6F18B340@riverhead20.access1.dh.i-2000.net>
Rendered body type: text/plain

First off, I don't know what happened but my MS Internet Explorer ver 2.0
now works to the FTP site! With no hangs at all...

The second item is... the biggy....

Has anyone seen the location of the "new" EPROM images for the PACCOMM 93
TNC? I have been looking without success... I have the older version but
am looking for the one that Gwyn spoke about releasing "after the show"...

I would just a soon do the install once instead of twice...

73
de Jon WA2YVL FN30rx
NNNN

72. Re: [DSP-93:1992] Ok!

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sun, 25 Feb 1996 11:56:46 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b00ad565329a6f0@[204.251.33.27]>
Rendered body type: text/plain

>Has anyone seen the location of the "new" EPROM images for the PACCOMM 93
>TNC? I have been looking without success... I have the older version but
>am looking for the one that Gwyn spoke about releasing "after the show"...
>
>I would just a soon do the install once instead of twice...
>
>73
>de Jon WA2YVL FN30rx
>NNNN

It has not been released yet.

Ron W5RKN

also:
rparsons@bga.com

73. Re: [DSP-93:1992] Ok!

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 25 Feb 1996 18:07:14 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960225180714.006746ac@camel.campbell.edu>
Rendered body type: text/plain

To my knowledge, the new images have not yet been posted.

At 10:36 2/25/96 -0600, you wrote:
>
>First off, I don't know what happened but my MS Internet Explorer ver 2.0
>now works to the FTP site! With no hangs at all...
>
>The second item is... the biggy....
>
>Has anyone seen the location of the "new" EPROM images for the PACCOMM 93
>TNC? I have been looking without success... I have the older version but
>am looking for the one that Gwyn spoke about releasing "after the show"...
>
>I would just a soon do the install once instead of twice...
>
>73
>de Jon WA2YVL FN30rx
>NNNN
>
>
>

Mark L. Hammond   [KC4EBR]

74. PACTOR/AMTOR/CLOVER

From: dmedley@ix.netcom.com (David Medley)
Date: Sun, 25 Feb 1996 13:51:51 -0800
To: dsp-93@tapr.org
Message-ID: <199602252151.NAA22042@ix3.ix.netcom.com>
Rendered body type: text/plain

I have been out of touch for a while. I am interested in trying
PACTOR/AMTOR/CLOVER on HF. Are there any modems for the DSP-93 available for
any of these modes? Or is the way to go via the HAL p38 modem?
Dave KI6QE

75. Re: [DSP-93:1993] Re: Ok!

From: "Gwyn Reedy, W1BEL" <gwyn@paccomm.com>
Date: Mon, 26 Feb 1996 08:09:20 -0500 (EST)
To: dsp-93@tapr.org
Cc: "Mark L. Hammond" <hammond@camel.campbell.edu>
Message-ID: <Pine.LNX.3.91.960226080049.8263A-100000@paccomm>
Rendered body type: text/plain

On Sun, 25 Feb 1996, Ronald G. Parsons wrote:

> >Has anyone seen the location of the "new" EPROM images for the PACCOMM 93
> >TNC? I have been looking without success... I have the older version but
> >am looking for the one that Gwyn spoke about releasing "after the show"...
> >
> >I would just a soon do the install once instead of twice...
> >
> >73
> >de Jon WA2YVL FN30rx
> >NNNN
>
> It has not been released yet.
>
> Ron W5RKN

```
I'm going to upload the latest EPROM image for the PacComm TNC for the
DSP-93 today. Please take note of the following:

The code has a complete KISS implementation which has been tested in both
terrestrial BBS use and amateur satellite use. The KISS seems to work
fine.

However, the tester doing the satellite access reported TWO occurances of
PTT lockup (transmitter locked in transmit). Therefore caution should be
exercised in using this code for unattended operation until you are
convinced that the problem will not occur in your installation.

We have not been able to recreate this problem at PacComm. What may have
happened is RF feedback into the keying transistor of the DSP TNC. I
suggest extra attention be paid to this in your installation.

The PASSTHRU command is implemented, but seems to work very poorly. This
is under investigation so that an improved version may be released.
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Gwyn Reedy, W1BEL            gwyn@paccomm.com          W1BEL@amsat.org

PacComm Packet Radio Systems, Inc.    +(813) 874-2980  Fax:+(813) 872-8696
4413 N. Hesperides St.               BBS: +(813) 874-3078 (V.34)
Tampa, FL 33614-7618 USA          info@paccomm.com  http://www.paccomm.com
```

76. Re: [DSP-93:1996] Re: Ok!

```
From: ssalek@h-e.com
Date: Tue, 27 Feb 96 09:42:13 PDT
To: dsp-93@tapr.org, gwyn@paccomm.com (Gwyn Reedy, W1BEL)
Message-ID: <0000029A.sm@h-e.com>
Rendered body type: text/plain
```

```
Hello Gwyn and DSP-93/PacComm TNC users--

I'm a little concerned about Gwyn's last posting re: the latest PacComm TNC
eprom image.  Let me elaborate:

>I'm going to upload the latest EPROM image for the PacComm TNC for the
>DSP-93 today.

It isn't on the dsp-93 ftp site as of this morning (Tuesday 2/27).

>Please take note of the following:
>

(...some material deleted)

>The PASSTHRU command is implemented, but seems to work very poorly. This
>is under investigation so that an improved version may be released.

This statement seems to open the door for never releasing a properly functioning
PASSTHRU, which would be unacceptable to me.  The PASSTHRU function was a main
selling point for me, and I don't detect a lot of optimism in this statement.
Gwyn, its been 4 months since you started shipping PacComm TNCs for the DSP-93,
and the present TNC is no better than my old MFJ 1270, except for the fact that
it fits inside the DSP-93.  Please elaborate on your statement, and let us know
what "very poorly" really means, i.e., does it really mean "unusable"?

Stan Salek
KD6CVL
```

77. Re: [DSP-93:1997] Re: Ok!

```
From: ssalek@h-e.com
Date: Tue, 27 Feb 96 12:25:41 PDT
To: dsp-93@tapr.org
Message-ID: <000002A2.sm@h-e.com>
Rendered body type: text/plain
```

```
Here's an update to my previous message--

I note that the eprom image "tnc21196.zip" is now available on the tapr ftp
site, and it is already moved to the Paccomm eproms directory.

>>I'm going to upload the latest EPROM image for the PacComm TNC for the
>>DSP-93 today.
>
>It isn't on the dsp-93 ftp site as of this morning (Tuesday 2/27).

73,
```

Stan

78. Re: Paccomm EPROM image corrupt?

From: ssalek@h-e.com
Date: Tue, 27 Feb 96 12:41:15 PDT
To: dsp-93@tapr.org, ssalek@h-e.com
Message-ID: <000002A3.sm@h-e.com>
Rendered body type: text/plain

Hello again,

I downloaded the tnc21196.zip file from the tapr ftp site, using binary transfer mode (as usual). However, my "unzipper" reports that the file is corrupt. Can someone download and attempt to extract the file(s) to verify my finding?

Thanks & 73,

Stan
KD6CVL

79. paccomm-tnc f/dsp93

From: wb5aaa@wb5aaa.usl.edu (Jim Barron)
Date: Tue, 27 Feb 96 15:49:12 cst
To: dsp-93@tapr.org
Message-ID: <10312@wb5aaa.usl.edu>
Rendered body type: text/plain

PASSTHRU: SEEMS TO WORK VERY POORLY
KISS: SEEMS TO WORK FINE HOWEVER ????

guess my TNc will never get pass the alpha testing ????

I am ready to order TAPR's TNC for the dsp-93
can anyone tell me the latest info on the TAPR TNC
for the DSP-93 ???
will it have KISS ?? HI HI HI

80. Re: [DSP-93:2000] paccomm-tnc f/dsp93

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 27 Feb 1996 16:26:24 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199602272226.QAA09127@tapr.org>
Rendered body type: text/plain

Hi Jim

You can see the current status on the web pages www.tapr.org look in the products under kits. There is page that says where we are. Shows the alp[ha unit and some more info.

Basically,

The TNC-95 alpha are completed and working. They are now in the hands of the firmware people (sound familiar) and when they have done their thing and we fell confident that there are no hardware problems we will proceed to beta. The problem is knowing how long it will take for this step ? Several of the guys are busy with commercial (bring home the paycheck) work and have to delay there effort --- I hope it moves faster, but canUt push volunteers. This is the kind of project that when they have time it shouldnUt be real difficult to move things over and test, but finding the time sometimes can be the challenge.

The TNC-95 development group is currently working on getting input on the various I/O issues for device attachments (external modems and the like). The DSP-93 interface is just one of several that have to be taken into account.

Other than that -- I hope we can have positive movement in the next month or so on the firmware. IUll post something next when we have something to say.

On another issue, I know the Paccomm unit has taken a lot of heat on here about the firmware and other issue, but I would like to thank Gwyn for taking the time to support the DSP-93 development by making one of his units compatible with it. This took time that Paccomm really didnUt have to provide -- so letUs keep that in mind. While it is a commercial product, there is a bit of the amateur tradition in what Gwyn does and his support of TAPR and what we do has always been very positive.

Just a few random thoughts.

HEY -- on another note. I had it brought to my attention that I had missed
checking out the HF SIG ftp area. Did you know that PACTOR I and AMTOR code
is over there! Someone should hustle over there and see if we can get that
stuff ported to the DSP-93! Now that is something to focus on!

Also -- I would like to bring up another technical discussion. How much
throughput can we get out of a VHF/UHF amateur voice radio that we use the
mic input as the connector. How fast ? 3600 ? 4800 ? what ? What
modulation scheme should be used ?

Cheers -- Greg

 (flames should be directed to me personally wd5ivd@tapr.org ;-)

>
> PASSTHRU: SEEMS TO WORK VERY POORLY
> KISS: SEEMS TO WORK FINE   HOWEVER ????
>
> guess my TNc will never get pass the alpha testing ????
>
> I am ready to order TAPR's TNC for the dsp-93
> can anyone tell me the latest info on the TAPR TNC
> for the DSP-93 ???
> will it have KISS ??   HI HI HI
>
>

81. Re: [DSP-93:1999] Re: Paccomm EPROM image corrupt?

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Tue, 27 Feb 1996 16:47:08 -0600
To: dsp-93@tapr.org, ssalek@h-e.com, gwyn@paccomm.com (Gwyn Reedy, W1BEL)
Message-ID: <v02140b01ad5939f97244@[204.251.33.5]>
Rendered body type: text/plain

>Hello again,
>
>I downloaded the tnc21196.zip file from the tapr ftp site, using binary
>transfer
>mode (as usual). However, my "unzipper" reports that the file is corrupt. Can
>someone download and attempt to extract the file(s) to verify my finding?
>
>Thanks & 73,
>
>Stan
>KD6CVL

It appears corrupt here also.

Ron W5RKN

also:
rparsons@bga.com

82. Re: [DSP-93:1996] Re: Ok!

From: "Gwyn Reedy, W1BEL" <gwyn@paccomm.com>
Date: Tue, 27 Feb 1996 17:54:57 -0500 (EST)
To: ssalek@h-e.com
Cc: dsp-93@tapr.org
Message-ID: <Pine.LNX.3.91.960227174318.13478C-100000@paccomm>
Rendered body type: text/plain

On Tue, 27 Feb 1996 ssalek@h-e.com wrote:

>
> Hello Gwyn and DSP-93/PacComm TNC users--
>
> I'm a little concerned about Gwyn's last posting re: the latest PacComm TNC
> eprom image. Let me elaborate:
>
> (...some material deleted)
>
> >The PASSTHRU command is implemented, but seems to work very poorly. This
> >is under investigation so that an improved version may be released.
>
> This statement seems to open the door for never releasing a properly functioning

> PASSTHRU, which would be unacceptable to me. The PASSTHRU function was a main
> selling point for me, and I don't detect a lot of optimism in this statement.
> Gwyn, its been 4 months since you started shipping PacComm TNCs for the DSP-93,
> and the present TNC is no better than my old MFJ 1270, except for the fact that
> it fits inside the DSP-93. Please elaborate on your statement, and let us know
> what "very poorly" really means, i.e., does it really mean "unusable"?
>
> Stan Salek
> KD6CVL

Stan and DSP-93 friends,

I didn't intend to convey the impression you received by the statement
about the PASSTHRU command.

My intent was to be open about the difficulty with the PASSTHRU command
and not to be hiding anything.

My additional intent was to show that we are working on the problem and
that a fix will be forthcoming. Somehow you took that as PacComm NOT
committing to fixing the problem, just the opposite of what I was trying
to convey.

Let me rephrase the original statement from,

"The PASSTHRU command is implemented, but seems to work very poorly. This
is under investigation so that an improved version may be released."

to

"The PASSTHRU command is implemented in this release. Commands and data
may be sent to the DSP-93 without problem, but characters are often lost
when the DSP-93 sends data to the TNC. This problem is being investigated
and a new EPROM image will be released when this problem is corrected."

_ _
Gwyn Reedy, W1BEL   gwyn@paccomm.com   W1BEL@amsat.org

PacComm Packet Radio Systems, Inc.   +(813) 874-2980 Fax:+(813) 872-8696
4413 N. Hesperides St.   BBS: +(813) 874-3078 (V.34)
Tampa, FL 33614-7618 USA   info@paccomm.com http://www.paccomm.com

83. Re: [DSP-93:1999] Re: Paccomm EPROM image corrupt?

From: Gerald Turner <gdturner@fullnet.net>
Date: Tue, 27 Feb 1996 17:05:02 -0600
To: dsp-93@tapr.org
Message-ID: <2.2.32.19960227230502.0072d030@mail.fullnet.net>
Rendered body type: text/plain

At 03:21 PM 2/27/96 -0600, you wrote:
>
>Hello again,
>
>I downloaded the tnc21196.zip file from the tapr ftp site, using binary
transfer
>mode (as usual). However, my "unzipper" reports that the file is corrupt. Can
>someone download and attempt to extract the file(s) to verify my finding?
>
>Thanks & 73,
>
>Stan
>KD6CVL
>
>

I had the same results, I sent a note to Gwyn that he should try to reupload.

Dee Turner, N2MNC
Enid, OK

84. Second upload of TNC21196.zip

From: "Gwyn Reedy, W1BEL" <gwyn@paccomm.com>
Date: Tue, 27 Feb 1996 18:22:27 -0500 (EST)
To: "Mark L. Hammond" <hammond@camel.campbell.edu>
Cc: dsp-93@tapr.org
Message-ID: <Pine.LNX.3.91.960227182054.13767A-100000@paccomm>
Rendered body type: text/plain

```
Mark, I re-uploaded the file to /tapr/dsp93/upload. File was checked
clean here before uploading (in binary mode). Give it another try.

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Gwyn Reedy, W1BEL            gwyn@paccomm.com          W1BEL@amsat.org

PacComm Packet Radio Systems, Inc.    +(813) 874-2980  Fax:+(813) 872-8696
4413 N. Hesperides St.               BBS: +(813) 874-3078 (V.34)
Tampa, FL 33614-7618 USA          info@paccomm.com  http://www.paccomm.com
```

85. reposting of latest Paccomm EPROM image

```
From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Wed, 28 Feb 1996 00:21:12 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960228002112.006ffae8@camel.campbell.edu>
Rendered body type: text/plain
```

```
Hi Stan,

I found the same to be true.  Fortunately, Gwyn has uploaded a version that
I can successfully unzip.  I have moved the file to

~tapr/dsp93/Paccomm_eproms/tnc21196.zip

(See Gywn's earlier message [DSP-93:1996] about changes made to this version
of the eprom code)

Let us know what you find out, Stan!

At 15:21 2/27/96 -0600, you wrote:
>
>Hello again,
>
>I downloaded the tnc21196.zip file from the tapr ftp site, using binary
transfer
>mode (as usual).  However, my "unzipper" reports that the file is corrupt.  Can
>someone download and attempt to extract the file(s) to verify my finding?
>
>Thanks & 73,
>
>Stan
>KD6CVL
>
>
>


Mark L. Hammond   [KC4EBR]
```

86. Re: [DSP-93:1999] Re: Paccomm EPROM image corrupt?

```
From: "Stacey E. Mills, M.D." <sem2r@galen.med.virginia.edu>
Date: Tue, 27 Feb 1996 18:24:45 -0500
To: dsp-93@tapr.org
Message-ID: <199602272324.SAA169566@avery.med.Virginia.EDU>
Rendered body type: text/plain
```

```
At 03:21 PM 2/27/96 -0600, you wrote:
>
>Hello again,
>
>I downloaded the tnc21196.zip file from the tapr ftp site, using binary
transfer
>mode (as usual).  However, my "unzipper" reports that the file is corrupt.  Can
>someone download and attempt to extract the file(s) to verify my finding?
>
>Thanks & 73,
>
>Stan
>KD6CVL


The "file" is actually a "directory" containing a *.DOC file and a *.IMG
Eprom file.  Try using "PKZIP /D" for the unzipping of the files.  I got the
same error when I tried a regular PKZIP.  Now, hopefully, the actual file is
not corrupted!!!
-------
--de WB4QKT
Stacey E. (Chuck)  Mills
E-mail: sem2r@galen.med.virginia.edu
```

87. Re: [DSP-93:2003] Re: Ok!

From: ssalek@h-e.com
Date: Tue, 27 Feb 96 17:44:54 PDT
To: dsp-93@tapr.org, gwyn@paccomm.com (Gwyn Reedy, W1BEL)
Message-ID: <000002A9.sm@h-e.com>
Rendered body type: text/plain

Gwyn,

Thanks for your explanation about the PASSTHRU problem. I see now that there are two (opposite) ways to interpret your original statement. I am pleased that you are committed to getting the PASSTHRU to work as a truly "transparent" DSP-93 communications mode, in both directions, as originally intended.

I have downloaded the latest (re-uploaded) eprom image from the tapr ftp site and it now unzips without difficulty.

73,

Stan
KD6CVL

88. Re: [DSP-93:2003] Re: Ok!

From: "Jim Lynch" <k4gvo@america.net>
Date: Wed, 28 Feb 1996 05:45:23 +0000
To: dsp-93@tapr.org
Message-ID: <199602281047.EAA14936@tapr.org>
Rendered body type: text/plain

> Date: Tue, 27 Feb 1996 17:01:04 -0600 (CST)
> Reply-to: dsp-93@tapr.org
> From: "Gwyn Reedy, W1BEL" <gwyn@paccomm.com>
> To: dsp-93@tapr.org
> Subject: [DSP-93:2003] Re:Paccomm problems

If I may inject a comment to this thread. I know a little bit about the business world and the costs associated with producing a product like Gwyn has given us. Let me assure you that Gwyn isn't about to take an around the world vacation on his profits off this board. Even if every DSP-93 owner bought one, he'd only make a reasonable profit, maybe.

I don't know for sure how many he has sold, but I'd bet a pretty good sum that he hasn't covered his development costs yet, unless he's got a supply of free labor.

I'm not associated with Paccomm in any way, but I gotta say that Gwyn sure isn't in the business to get rich with this product.

Gwyn,
Thanks.

Jim.
Jim Lynch Fayetteville, GA K4GVO
'86 GL1200I k4gvo@america.net 44.36.34.20

89. Re: [DSP-93:2007] Re: Paccomm EPROM image corrupt?

From: "Gwyn Reedy, W1BEL" <gwyn@paccomm.com>
Date: Wed, 28 Feb 1996 06:15:41 -0500 (EST)
To: "Stacey E. Mills, M.D." <sem2r@galen.med.virginia.edu>
Cc: File <file@paccomm.com>, dsp-93@tapr.org
Message-ID: <Pine.LNX.3.91.960228061121.13867D-100000@paccomm>
Rendered body type: text/plain

On Tue, 27 Feb 1996, Stacey E. Mills, M.D. wrote:

> The "file" is actually a "directory" containing a *.DOC file and a *.IMG
> Eprom file. Try using "PKZIP /D" for the unzipping of the files. I got the
> same error when I tried a regular PKZIP. Now, hopefully, the actual file is
> not corrupted!!!
> -------
> --de WB4QKT
> Stacey E. (Chuck) Mills
> E-mail: sem2r@galen.med.virginia.edu

The archive named TNC21196.ZIP contains three files:

TNC211.IMG EPROM image

```
TNC211.DOC    Instructions and information about this release
TNC211.DFT    Default parameters listing

There are no subdirectories in the archive. The standard command of

PKUNZIP TNC21196.ZIP

is all that is required. This will expand all three files.
```


```
Gwyn Reedy, W1BEL          gwyn@paccomm.com          W1BEL@amsat.org
PacComm Packet Radio Systems, Inc.    +(813) 874-2980  Fax:+(813) 872-8696
4413 N. Hesperides St.               BBS: +(813) 874-3078 (V.34)
Tampa, FL 33614-7618 USA          info@paccomm.com  http://www.paccomm.com
```


90. PacComm TNC firmware file

```
From: "Stacey E. Mills" <sem2r@galen.med.virginia.edu>
Date: Wed, 28 Feb 1996 12:00:45 -0500 (EST)
To: dsp-93@tapr.org
Cc: sem2r@galen.med.virginia.edu
Message-ID: <199602281700.MAA43421@galen.med.Virginia.EDU>
Rendered body type: text/plain
```

```
I've downloaded the updated Eprom firmware file for the PacComm
TNC and have a colleague who can burn it into a spare EPROM
for me.....now the naive question, I've never done this upgrade
before.  What format is the downloaded *.img file in (Intel,
Motorola, etc).  It's probably obvious, but I'm new at this
stuff...

Thanks!!

--
-73's de WB4QKT
Stacey E. (Chuck) Mills
E-mail: sem2r@galen.med.virginia.edu
```

91. Re: [DSP-93:2011] PacComm TNC firmware file

```
From: ssalek@h-e.com
Date: Wed, 28 Feb 96 12:27:26 PDT
To: dsp-93@tapr.org, sem2r@galen.med.virginia.edu (Stacey E. Mills)
Message-ID: <000002B1.sm@h-e.com>
Rendered body type: text/plain
```

```
Hello Chuck--

>What format is the downloaded *.img file in (Intel,
>Motorola, etc).  It's probably obvious, but I'm new at this
>stuff...
>
>Thanks!!

Its binary.  Just load it to start at the first EPROM address using the binary
loader option provided with the programmer software.  My EPROM programmed fine
last night and it is now in use.

73,

Stan
KD6CVL
```

92. adapt carrier null

```
From: Tim Baggett <tim@NMSU.Edu>
Date: Wed, 28 Feb 1996 22:41:00 -0700 (MST)
To: dsp-93@tapr.org
Message-ID: <Pine.SUN.3.91.960228223517.10524C-100000@wilma>
Rendered body type: text/plain
```

```
Hello all,

This is somewhat of a generic DSP question, but, hey, this is a great
group to ask it!

I'm looking to create an adaptive carrier null DSP program for a project
here at school. I'm not quite certain about how to tackle this project as
I'm still just getting started in implementing algorithms in DSP. I
looked around the TAPR archives for such a program that I could examine,
but I didn't find anything (I guess the W9GR adaptive carrier null
program is under copyright and restricted??)
```

Anyone got any tips on how this is accomplished, or where I might find
some insight on this problem?

Thanks!

Tim, AA5DF

New Mexico State University, Las Cruces, NM
Internet: tim@nmsu.edu
AMPRnet: aa5df@armstrong.ampr.org

93. test(never read)

From: ISAO KOUDA <kouda@rdbgw.rd.chuden.co.jp>
Date: Fri, 1 Mar 96 12:48:52 JST
To: dsp-93@tapr.org
Message-ID: <Chameleon.960301125100.kouda@rdbgw.rd.chuden.co.jp>
Rendered body type: text/plain

This is a test mail from JJ2BIB

NAME:ISAO KOUDA
E-mail: kouda@rdbgw.rd.chuden.co.jp
Date: 03/01/96
Time: 12:42:06

This message was sent by Chameleon
---

94. Re: [DSP-93:2013] adapt carrier null

From: fperkins@onramp.net
Date: Thu, 29 Feb 1996 19:07:39 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199603010107.TAA27961@mailhost.onramp.net>
Rendered body type: text/plain

See if your school library has a copy of "Digital Signal Processing
with the TMS320C25" by Chassaing and Horning (Wiley). You will find
example source code there. I think W9GR source is on the ARRL BBS.

73 Frank WB5IPM

March 1996

Original source file: dsp.9603
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9603

1. 1996 ARRL and TAPR Digital Communications Conference

From: Greg Jones <wd5ivd@tapr.org>
Date: Mon, 4 Mar 1996 15:52:53 -0600 (CST)
To: netsig@tapr.org (NETSIG mailing), bbssig@tapr.org (BBS SIG mailing),
aprssig@tapr.org (BBS SIG mailing), hfsig@tapr.org (HF SIG mailing),
dsp-93@tapr.org (DSP-93 Build), ss@tapr.org, tapr-tnc@tapr.org
Message-ID: <199603042152.PAA21342@tapr.org>
Rendered body type: text/plain

Press Release. Please distribute as widely as possible. http://www.tapr.org
March 1st, 1996

ARRL and TAPR Digital Communications Conference
September 20-22, 1996
Seattle, WA, U.S.A.

1996 ARRL and TAPR Digital Communications Conference

Mark your calendar and start making plans to attend the year's premier event in amateur radio digital communications --

The 1996 ARRL and TAPR Digital Communications Conference will be held September 20-22, 1996, in Seattle, Washington -- just minutes from the SeaTac Airport. Local sponsors include the Puget Sound Amateur Radio TCP/IP Group and Boeing Employees Amateur Radio Society (BEARS).

The ARRL and TAPR Digital Communications Conference is an international forum for radio amateurs and experts in digital communications, networking, and related technologies to meet, publish their work, and present new ideas and techniques for discussion. Presenters and attendees will have the opportunity to exchange ideas and learn about recent hardware and software advances, theories, experimental results, and practical applications. This year marks the first year in which the ARRL Digital Communications Conference and TAPR Annual General Meeting have joined into one conference!

Anyone interested in digital communications is invited to submit a paper for publication in the Conference Proceedings. Presentation at the Conference is not required for publication. Papers are due by July 23, 1996, and should be submitted to Maty Weinberg, ARRL, 225 Main St., Newington, CT 06111 U.S.A. or via Internet at lweinberg@arrl.org. Please contact Maty for detailed format requirements. Papers are due by July 23, 1996

ARRL and TAPR especially welcome papers from full time students to compete for the first annual student papers award. Two $500 travel awards will be given, one in each of the following categories: a) best technical/theory-oriented paper by a student, and b) best educational or community-oriented application paper by a student. The paper should relate directly to a wireless digital communication topic (see guidelines for more information). Papers coauthored by educators or telecommunications professionals are also eligible for this award, as long as a student is the first author. First year awards have been funded through a grant by The ARRL Foundation, Inc. Deadline for receipt of finished student paper manuscript: June 11, 1996. Please note that this deadline is different than the general conference submission date. For full details and paper guidelines, contact TAPR or check http://www.tapr.org.

The current schedule has a workshop and student papers on Friday afternoon. Conference Papers, Introductory thread, Lunch, and Dinner on Saturday. Sunday will have additional paper sessions, if necessary, as well as one or more workshops. Workshops will include Keith Sproul, WU2Z, on APRS packet-location software, Dewayne Hendricks, WA8DZP , on "How to utilize Part 15 Radios for Ham Applications" and a workshop on Wireless Networking using WA4DSY 56K RF modem technology and its accessories. See the advanced registration form for more details as well as http://www.tapr.org

For more information on the Conference, registration, and hotel reservations please contact TAPR at the address below.

TAPR Office:
8987-309 E. Tanque Verde Rd. #337
Tucson, AZ 85749-9399

Phone: (817) 383-0000
Fax: (817) 566-2544

Internet E-Mail: tapr@tapr.org
Internet Web: http://www.tapr.org

2. (no subject)

From: wb5aaa@wb5aaa.usl.edu (Jim Barron)
Date: Wed, 06 Mar 96 20:04:47 cst
To: dsp-93@tapr.org
Message-ID: <10753@wb5aaa.usl.edu>
Rendered body type: text/plain

I have not seen any messages from dsp-93@tapr.org
just checking ,
maybe I was dumped from the list

3. Re: [DSP-93:2017]

From: Fermax.esp@vlc.servicom.es
Date: Thu, 07 Mar 1996 08:45:10 +0100
To: dsp-93@tapr.org
Message-ID: <199603070750.IAA08719@ns.mad.servicom.es>
Rendered body type: text/plain

Hello Jim,

At 20:21 6/03/96 -0600, you wrote:
>I have not seen any messages from dsp-93@tapr.org
>just checking ,
>maybe I was dumped from the list

Well, the problem is that there is not much message traffic at this SIG. I
am subscribed to HF SIG and DSP-93 SIG, and there is a lot of traffic in the
former, but little in the later... Perhaps we need to make more
experimentation with the DSP-93...

I am using the kit only to work 1200 and 9600 baud satellites, but I would
want to use it in HF.... Any idea?. I use only one port for both type of
satellites, with an average efficiency of about 90% at 9600 and about 75% at
1200. So I have one port waiting for HF ;-) !

Any idea will be wellcomed!

Regards.

73's JOSE VTE - EB5AGV / EC5AAU

JOSE V. GAVILA
R&D Engineer
FERMAX ELECTRONICA S.A.E.

4. Re: [DSP-93:2018] Re:

From: "Jim Lynch" <k4gvo@america.net>
Date: Fri, 8 Mar 1996 05:21:53 +0000
To: Fermax.esp@vlc.servicom.es, dsp-93@tapr.org
Message-ID: <199603081025.EAA00689@tapr.org>
Rendered body type: text/plain

> Date: Thu, 7 Mar 1996 01:52:14 -0600 (CST)
> Reply-to: dsp-93@tapr.org
> From: Fermax.esp@vlc.servicom.es
> To: dsp-93@tapr.org
> Subject: [DSP-93:2018] Re:

> Hello Jim,
>
> At 20:21 6/03/96 -0600, you wrote:
> >I have not seen any messages from dsp-93@tapr.org
> >just checking ,
> >maybe I was dumped from the list
>
> Well, the problem is that there is not much message traffic at this SIG. I
> am subscribed to HF SIG and DSP-93 SIG, and there is a lot of traffic in the
> former, but little in the later... Perhaps we need to make more
> experimentation with the DSP-93...

>
> I am using the kit only to work 1200 and 9600 baud satellites, but I would
> want to use it in HF.... Any idea?. I use only one port for both type of
> satellites, with an average efficiency of about 90% at 9600 and about 75% at
> 1200. So I have one port waiting for HF ;-) !
>
> Any idea will be wellcomed!
>
> Regards.
>
> 73's JOSE VTE - EB5AGV / EC5AAU
Hi, Jose,

I too am looking for more oportunities to use my DSP-93 on HF. That
is the only reason I bought it. It sits on the shelf collecting
dust. The problem is a lack of developers. Only a couple of them
work on HF software, and they haven't announced anything lately.

Before anyone suggests that I do it myself, I've been trying, but I
have no idea how to start. I lack the technical skills to understand
the process, I guess. I opened one of the texts suggested as
introductory reading by someone a while back and decided I'd have to
go back to school for a couple of years just to understand the
introduction. This stuff is for MSEE candidates, not laymen. I sure
wish someone would write a "DSP for dummies".

Dave's MODEM program which is still on tapr, I suspect, is a good
rtty program. It seems to perform admirably. Tuning is a bear.
Just a comment, I started with rtty in 1966 with an old TTL/2 tube
type demod. I build a scope cross hair tuning indicator for it.
I've probably never had a better TU/TNC for rtty, operationally.
It seems like every evolution is harder to use.

DSP has such great promise, too bad it is impossilbe to use. 8^)

Don't mind me, I'm just a frustrated OF.
73,
Jim.
Jim Lynch   Fayetteville, GA   K4GVO
'86 GL1200I   k4gvo@america.net   44.36.34.20

5. Re: [DSP-93:2019] Re:

From: Charles Stampf <hinces01@hinserv1.hin.state.ny.us>
Date: Fri, 08 Mar 1996 08:25:18 -0500
To: dsp-93@tapr.org
Message-ID: <3140353E.DD1@health.co.dutchess.ny.us>
Rendered body type: text/plain

> Hi, Jose,
>
> I too am looking for more oportunities to use my DSP-93 on HF. That
> is the only reason I bought it. It sits on the shelf collecting
> dust. The problem is a lack of developers. Only a couple of them
> work on HF software, and they haven't announced anything lately.
>
> Before anyone suggests that I do it myself, I've been trying, but I
> have no idea how to start. I lack the technical skills to understand
> the process, I guess. I opened one of the texts suggested as
> introductory reading by someone a while back and decided I'd have to
> go back to school for a couple of years just to understand the
> introduction. This stuff is for MSEE candidates, not laymen. I sure
> wish someone would write a "DSP for dummies".
>
> Dave's MODEM program which is still on tapr, I suspect, is a good
> rtty program. It seems to perform admirably. Tuning is a bear.
> Just a comment, I started with rtty in 1966 with an old TTL/2 tube
> type demod. I build a scope cross hair tuning indicator for it.
> I've probably never had a better TU/TNC for rtty, operationally.
> It seems like every evolution is harder to use.
>
> DSP has such great promise, too bad it is impossilbe to use. 8^)
>
> Don't mind me, I'm just a frustrated OF.
> 73,
> Jim.
> Jim Lynch   Fayetteville, GA   K4GVO
> '86 GL1200I   k4gvo@america.net   44.36.34.20

Jim,

Ditto. I've tried the manuals and suggested references and have also
found them to be above my head.

Such a wonderful tool is sitting there waiting to be put to use. Maybe
I expected too much......

Hopefully some enterprising guru can help fill the void!

-73-
Charlie, N2CJ

6. Re: [DSP-93:2019] Re:

From: Fermax.esp@vlc.servicom.es
Date: Fri, 08 Mar 1996 14:30:52 +0100
To: dsp-93@tapr.org
Message-ID: <199603081336.OAA27442@ns.mad.servicom.es>
Rendered body type: text/plain

Hello Jim,

At 04:32 8/03/96 -0600, you wrote:

>I too am looking for more oportunities to use my DSP-93 on HF. That
>is the only reason I bought it. It sits on the shelf collecting
>dust. The problem is a lack of developers. Only a couple of them
>work on HF software, and they haven't announced anything lately.

Well, I think it's true!. There is a very low message flow here, and this is
a bad thing...

>Before anyone suggests that I do it myself, I've been trying, but I
>have no idea how to start. I lack the technical skills to understand
>the process, I guess. I opened one of the texts suggested as
>introductory reading by someone a while back and decided I'd have to
>go back to school for a couple of years just to understand the
>introduction. This stuff is for MSEE candidates, not laymen. I sure
>wish someone would write a "DSP for dummies".

When I bought my DSP-93, I thought there would be a lot of people doing fine
programs for it. And I thought to enter the DSP programming world (I have
studied DSP in theory and work as a programmer). But I don't know if it will
be useful (for me and for the rest of us) to spend a lot of time on it.
Everybody has moved to HF-SIG and Motorola DSP's, I think :-(!

>Dave's MODEM program which is still on tapr, I suspect, is a good
>rtty program. It seems to perform admirably. Tuning is a bear.

Well, I haven't tryed this one. I will try it...

>Just a comment, I started with rtty in 1966 with an old TTL/2 tube
>type demod. I build a scope cross hair tuning indicator for it.
>I've probably never had a better TU/TNC for rtty, operationally.
>It seems like every evolution is harder to use.

This is a general problem with all amateur equipment; with the proliferation
of SMD components and LSI circuits, it is not possible to repair (nor
understand!) the internals of transceivers and other equipment... It's a
pity!. I have recently bought one 'old' transceiver (FT-102) ONLY to LEARN
about RF circuits, because my 'modern' transceiver (FT-890) is not soo much
'tech-user friendly'...

>DSP has such great promise, too bad it is impossilbe to use. 8^)

Well, I am thinking to give up with DSP-93 and get some 'different' (i.e.
Motorola) DSP system... I hope to get some better news about DSP-93 soon!

>Don't mind me, I'm just a frustrated OF.

Ok. But if all remains the same........

Regards.

73s JOSE VTE - EB5AGV / EC5AAU

JOSE V. GAVILA
R&D Engineer
FERMAX ELECTRONICA S.A.E.

7. Lack of software

From: "Alberto di Bene (xx39-2-596.25744)" <dibene@VNET.IBM.COM>
Date: Fri, 8 Mar 96 14:57:09 EST
To: dsp-93@tapr.org
Message-ID: <199603081355.HAA07758@tapr.org>
Rendered body type: text/plain

```
.....
> I too am looking for more oportunities to use my DSP-93 on HF.  That
> is the only reason I bought it.  It sits on the shelf collecting
> dust.  The problem is a lack of developers.  Only a couple of them
> work on HF software, and they haven't announced anything lately.
.....


 IMHO, the problem with DSP-93 is two-fold : use of an almost obsolete CPU
 and high price, at least for those who have to pay with non-US currencies.
 Potential developers are not attracted by that. I would like to see a
 DSP-96 ?  DSP-97 ?  project with at least a TMS320C50, possibly available
 in a PCB-only version, with GAL equations made public, so that anyone
 interested could build its own unit, buying the components where they are
 more cheap for him. I know that the 'C50 is available in a SMD package only,
 but with a glass magnifier and a steady hand that can be managed. I do also
 realize that the PCB-only version would contrast with the needs of funding
 of TAPR, but please consider just for a second what is the main driving
 force behind the wild success of Linux.

 73 de Alberto di Bene,  I2PHD
```

8. Re: [DSP-93:2019] Re:

From: dsp@nbn.net
Date: Fri, 08 Mar 1996 17:42:23 +0000
To: dsp-93@tapr.org
Message-ID: <199503081829.NAA00893@users.nbn.net>
Rendered body type: text/plain

```
>
[Attachment: 20191; text/plain; 4,111 bytes]
```

9. Re: [DSP-93:2019] Re:

From: Mills@huey.udel.edu
Date: Fri, 8 Mar 96 13:45:56 EST
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <9603081345.aa08362@huey.udel.edu>
Rendered body type: text/plain

```
Jim,

I sympathize with your observations - while I have a good deal of math
wiggling my brain cells, I am self taught in the DSP area. One reason
I made my source code available, which is richly ornamented with
comments, was a hope that others could rip out various algorithms and
stick in their own, while leaving the large burden of input/output,
command interpretation and TNC-like code largely intact. It shouldn't
be too hard to implement other fancy modulation schemes currently
popular, in fact and do it better than other boxes now available. You
might also enjoy the recently updated report on the modem - see my
web page http://www.eecis.udel.edu/~mills and punch the reports button.

Projects that might be done using the modem framework include a de-noise
filter, auto-reject filter, echo canceller (the ultimate anti-VOX),
compressor/limiter, WWV timecode (IRIG) decoder, CHU timecode
demodulator/decoder, auto-link establishment (ALE) modem, adaptive
equalizer, RTTY with AFC with auto-shift, on and on. Just please publish
the source code for others to play with.

Dave
```

10. Future of DSP-93

From: Greg Jones <wd5ivd@tapr.org>
Date: Fri, 8 Mar 1996 16:41:59 -0600 (CST)
To: dsp-93@tapr.org (DSP-93 Build)
Message-ID: <199603082241.QAA01965@tapr.org>
Rendered body type: text/plain

```
Hi DSP-93 group.

The comments expressed in the last few messages are not the only ones I have
```

been hearing lately.

Basically people want more code for the DSP-93. Simply put, the DSP-93 code developers and hardware developer burnt out after the effort to complete the DSP-93 unit. 15 months of non-stop work will do that to you. This is a very typical outcome on a volunteer project. I can point to other satellite projects and TAPR projects that had the same outcome.

In addition, the long delay between kit shipments have been a factor. We are looking at ways to trying to keep a few kits in stock at all times after we do this next run, but that is only in discussion currently. We currently have 25 orders for the next batch in April/May and I am ordering parts currently.

Let me see if I can hit the three main comments I have heard in the last few months.

1. Need more software development
2. Need more educational materials
3. Need a better processor

---

1. Need more software development

As it has been stated frequently by the dsp 93 development group 'it is time for other amateurs to take the mantel and look at developing code or porting what they find elsewhere (i.e. HF SIG) to the DSP-93'. Dave Mills and others have begun...but it is not a simple process. While the original developers are around to help people with questions, they have told me that they are working on others projects now. So, I don't expect to see anything major developed by them for some time. Thus it is up to the owners of DSP-93s to become the next generation of code developers.

This might sound bleak, but it is not. The DSP-93 as it stands now has one of the most complete set of code available, working, and tested then any other complete DSP unit including the evaluation modules that many want to use. Yes it is focused on satellite operations, but that was the interest of the developers who volunteered their time and effort. Yes the price is high -- but that is what it cost plus what TAPR and AMSAT has to make. If it were not a joint project, I could guarantee that the price would be lower, since the profit would not have to be shared. Something that I will consider in the future.

I see that many of you are following the HF SIG. This is very positive. Johan, who is the TAPR HF SIG Chair, and I have talked about all of these issues in the last few weeks and as you can probably tell from my rambling answers thus far -- there is no easy answer.

It seems to appear to me that with the increase in developers choosing different platforms for different reasons, we will see more code but the amount of porting seems to be about nill. Thus, the chore of finding what you want on one DSP unit will become increasingly difficult. DSP offered the ability/future to allow one unit to do a lot of the functions, but it appears that we again need several boxes in the shack to do the different code segments because there is a lack of portability between units. The portability problems is strictly not hardware in nature. Interesting ?

---

2. Need more educational materials

Would a book help ?

Developing educational materials on different topics has been a goal of mine at TAPR for sometime. Our current publications are moving TAPR in this direction, but it takes a lot of time.

The question become --
        what goes in this book ?
        who writes it ?

I would love to see a book that would help more get into DSP development - but someone has to develop it ? Unless someone comes along and has something for TAPR to do - it will not happen. I can't write it.

Jon Bloom, at the ARRL, developed a workshop for DSP development, and they (ARRL) were doing a video tape of it, but I don't know where it stands. I have asked Jon about it. If they have it -- we will work on getting it and

distributing it in some fashion if possible.

Tom McDermott's book 'Wireless Digital Communications: Design and Theory' should be a big help in explaining the process of modem design for those attempting DSP programing, but this really only hits one of the three areas, that of modem design (see next statement).

Something that came under discussion some two years ago was to organize a specific weekend DSP meeting. The purpose would be to focus one time on DSP development and then try to record as much as possible and make that available. I have several friends here in Austin that make their money doing training videos in this fashion. We could contract one of them and do it.

The question then becomes, could we gather the necessary 2-3 hours talks for a weekend to handle such an event and would anyone attend. There are three major aspects to DSP development: hardware architecture, software architecture, code development and modems design. TAPR could probably put together a very comprehensive two day workshop or conference on these issues (brining together the top notch amateurs experts in the area), but would people fly into Texas or MO or some centrally located state for an event like this ? I would be interested in hearing comments.

We could append something to the Digital Communications Conference next year (already filled this year with workshops), but is 3 hours enough ? In the past, three hours only seems to tweak peoples interest.

I guess what I am asking is -- what do people think is needed ? I am not a mind reader and I really do want TAPR working on things that the membership can use. Or at least trying to focus limited resources or having it on my list to discuss with people when someone shows up and wants to work on a project.

---

3. Need a better processor

It is not out of the question that TAPR/AMSAT might eventually develop a DSP board to replace the current DSP bottom board...but based on where are now -- I don't think it will happen, unless someone just shows up with one ready to go that we could take to kit. Just like the DSP-93 was placed on our plate. Then again, what processor ? Yes, the TMS320C25 is not the hottest chip in the world. But there are things to be learned from the DSP-93, so don't write it off because it is not the latest.

There have been discussions on where we go next with DSP hardware kits, but nothing is certain. We discussed for several weeks on HF SIG about doing an interface board for the various eval boards but nothing came of that. Someone on the DSP-93 SIG has approached me about doing an interface board for the Moto Eval board -- but that has only been a few e-mails. Someone has approached TAPR about doing a C5X design with a processor, but then you run into the problem of raising the development bar by adding a processor. If you think programming on the C25 is difficult, just add an internal processor like the mfg units have. That makes the chore several times more difficult.

Anyway -- I thought I would spend a few minutes on comments. I am aware of what is happening and want to see what TAPR can do best for the amateur community. 3 years ago it was the effort to develop the DSP-93 unit. A notable feat for its size and complexity.

It sounds like we need to put together a group that will port the HF code being developed on the HF SIG for use on the DSP-93 for those that want HF functionality. Johan and myself both thought this would be a good idea. Who wants to form that group and do the work ?

I am all ears (or eyes in this case :-)

Cheers - Greg, WD5IVD

11. Re: [DSP-93:2019] Re:

From: "Steven R. Bible" <srbible@mindport.net>
Date: Fri, 08 Mar 1996 19:41:05 -0500
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960309004105.006bf12c@mindport.net>

Rendered body type: text/plain

At 04:32 AM 3/8/96 -0600, Jim Lynch, K4GVO wrote:

>DSP has such great promise, too bad it is impossilbe to use. 8^)

Perhaps this will help Jim.

I have found the program MATLAB (www.mathorks.com) is a very good teaching tool. I also found Profs Zeytinoglu and Ma lab manual for their Communications Systems II course. I post a description of this comms package below compliments of the comp.dsp faq (http://www.bdti.com/faq/dsp_faq.htm).

Finally, may I suggest a text that I really enjoy.

"Digital Signal Processing - Principles, Algorithms, and Applications"
by Proakis and Manolakis
Third Edition
Prentice-Hall (www.prenhall.com)
ISBN 0-13-373762-4

It is more practically oriented and light on theory.

- Steve N7HPR

Package: Communications Toolbox

Description: We have developed a "Communications Toolbox" based on the Matlab code for classroom use. It is used by students taking a 4th year communications course where the emphasis is on digital coding of waveforms and on digital data transmission systems. The Matlab code that constitutes this toolbox has been in use for over two years.

There are close to 100 "M-files" that implement various functions. Some of them are quite simple and are based on existing Matlab M-files. But a great many of them has been created from scratch. We also prepared a lab manual (in TEX format) for the 7 simulations which the students perform as the lab component of this course. The topics of these simulations are:

- Probability Theory
- Random Processes
- Quantization
- Binary Signalling Formats
- Detection
- Digital Modulation
- Digital Communication

New version (Matlab 4.1) is available on:
file://ftp.mathworks.com/pub/contrib/misc/comm_tbx.tar

Old version (Matlab 3.5) is available on:
file://evans.ee.adfa.oz.au/pub/matlab/comms/comm_tbx.tar

Functionality is basically the same.

The manual has also been slightly changed. I am still working to get all the figures in postscript format. Please continue using the old manual until I have the new manual in postscript format ready.

[Mehmet Zeytinoglu - mzeytin@ee.ryerson.ca]

- Steve, N7HPR

srbible@mindport.net
n7hpr@amsat.org
n7hpr@tapr.org

12. RE: [DSP-93:2025] Future of DSP-93

From: Jon Bloom <jbloom@nai.net>
Date: Sat, 9 Mar 1996 07:53:36 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BB0D8D.8C899FC0@jbloom.nai.net>
Rendered body type: text/plain

Greg Jones[SMTP:wd5ivd@tapr.org] wrote:
>Jon Bloom, at the ARRL, developed a workshop for DSP development, and they
>(ARRL) were doing a video tape of it, but I don't know where it stands. I
>have asked Jon about it. If they have it -- we will work on getting it and
>distributing it in some fashion if possible.

You need to talk to Rosalie White (rwhite@arrl.org) about that.

-- Jon, KE3Z

13. Re: [DSP-93:2023] Re:

From: "Jim Lynch" <k4gvo@atl1.america.net>
Date: Sun, 10 Mar 1996 06:46:31 -0500 (EST)
To: dsp-93@tapr.org
Message-ID: <3142c1170.2380@atl1.america.net>
Rendered body type: text/plain

>
> >
> >Don't mind me, I'm just a frustrated OF.
> >73,
> >Jim.
> >Jim Lynch   Fayetteville, GA   K4GVO
>
>
> HI Jim,
>
> Do not however be completely put off; it took me maybe 3 months from deciding that my career was 'dsp
 or die' to being able to write stuff that worked reasonably enough to make my employers feel that they
weren't totally wasting their money... it _does_ require commitment though.

Yes, I understand. And commitment also means time, which is part of
my frustration 'cause I don't have enough. Pesky work keeps getting in
the way. I'm a sales analyst with Cray Research.
>
> The thrusts are twofold - grasping how various processes operate in the digital world (filtering
primarily) and secondly how those processes are implemented in a specific processor.
>
> Dealing with the 'theoretical' end of it first, unfortunately most of the heavyweight texts are - as
you have found - precisely that. The 'bible' (Oppenheim and Schafer) is not a good place to start
unless you are a currently immersed math-head. Two texts that work very well, especially if you are
into audio at all, are 'The Art of Digital Audio' (second ed) by John Watkinson. Never mind anything
else, this one is worth it for the few pages describing how IIRs work. Besides that, John is a
good-natured fellow Limey hooligan who would be thankful for your patronage, and now owes me a beer.
The second is 'PC-DSP' by Oktay Alkin (Prentice Hall). It is essentially a program on a disk with a
supporting book which as I understand it is the basis for a college course in dsp. It allows the
creation and analysis of both FIR and IIR filters of varying sizes and weightings, explores FFTs and
most bread-and-butter dsp-kinda-stuff. It is an excellent inexpensive way of painless!
 ly!
Thanks for the pointers I'll see what I can find.
>   getting a handle on the various processes, and I still use it to this day for running up filter
coefficients in a hurry! Only once you outgrow this is it time to acquire a 'real' filter design
program such as 'Hypersignal' or 'Momentum'.
>
> Implementation in a processor of choice is, probably, the real hard work. None of the major players
have really gone out of their way to make it easy, and at the acknowledged risk of having electronic
gasoline poured all over me, TI is probably the worst.
I've got both the DSP-93 and the Motorola EVM. I've got the tools, I just
can't get started.
>
> Pretty much a pre-requisite is to have programmed in assembler on some platform or other at some time
before, even if it was just a humble 6502 back in the dark ages, or even a modern day 'PIC'
microcontroller. Assembler programming is arcane and deliberately cryptic; trying to come to terms with
 that at the same time as dsp algo stuff at the same time as a weird new processor is just too much for
any sick puppy.
>
I started with BAL in about 1968, Compass (CDC) in 1969, 6502 in 1977, 8080 and
Z80 in 1980, 8086 in 1984 and 8051 in 1985. Oh, and CAL (Cray) in 1986
and recently PIC. I'm not afraid of assembler and can handle the
language fine. I can figure out how to tell it what to do, I just can
figure out what to tell it to do. I need the basics without the heavy
math I guess.
> The next step is to acquire a solid reliable piece of dsp hardware with as much operating example
software - with source code - as possible. And then play with it. Probably the best choices right now
would be:
>
> - a working DSP-93, since there is so much available code, and some good folk here who if asked
nicely may help you dig yourself out of a hole,
>

> - the Motormower DSP56002EVM. This even has the on-chip emulation operational, so that when " I t D o e s n ' t B l o o d y W o r k ! " you stand a chance of finding out why. This kind of facility used to cost many thousands of dollars. (Just ask me...)
>
> Start simple, go slowly. It'll be a while before you're hacking Kenwood's TS870 filter block, in fact it'll be a while before you even get a signal in one end and out the other of your development system. Play with simple filters, build slowly. I won't tell you to have fun, because this is truly one of those "Jeez, it's 3am already" occupations. And we all know time flies when you're having fun...
>
I understand. My wife can attest to the fact I experience those revalations frequently. It is a good thing she is very busy with her career and doesn't have time for such mundane things as eating dinner out and parties. She can't drag me out of my hole, usually.
> Good luck!
Thanks for the tips, information and encouragement, Steve.

Jim.

Jim Lynch Fayetteville, GA K4GVO
k4gvo@america.com '86 GL1200I

14. Re: Jon Bloom's message

From: "Jim Lynch" <k4gvo@america.net>
Date: Sun, 10 Mar 1996 07:16:45 +0000
To: dsp-93@tapr.org
Message-ID: <199603101220.GAA27153@tapr.org>
Rendered body type: text/plain

What was that attachment that Jon sent? I totally screwed up my mailer. I couldn't download mail from my ISP when that message was in the incoming list. Elm on the UNIX box didn't like it either. I finally got a copy of Eudora and it stripped the attachment off and stored it, but I haven't figured out what utility to use to decode it.

73,
Jim.
Jim Lynch Fayetteville, GA K4GVO
'86 GL1200I k4gvo@america.net 44.36.34.20

15. RE: [DSP-93:2029] Re: Jon Bloom's message

From: Jon Bloom <jbloom@nai.net>
Date: Sun, 10 Mar 1996 20:00:06 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BB0EBC.B22F37A0@jbloom.nai.net>
Rendered body type: text/plain

Jim Lynch[SMTP:k4gvo@america.net] wrote:
>What was that attachment that Jon sent? I totally screwed up my
>mailer. I couldn't download mail from my ISP when that message was
>in the incoming list. Elm on the UNIX box didn't like it either. I
>finally got a copy of Eudora and it stripped the attachment off and
>stored it, but I haven't figured out what utility to use to decode
>it.

Sorry about that. I accidentally sent the mail as a Microsoft Exchange formatted message, which only Exchange understands. I don't know why you wouldn't be able to download the message, though.

-- Jon

16. [DSP-93:2025] Future of D

From: paul.cecil@sol.kiss.de (PAUL CECIL)
Date: Mon, 11 Mar 96 00:42:00 +0100
To: dsp-93@tapr.org
Message-ID: <8BC802A.006500995F.uuout@sol.kiss.de>
Rendered body type: text/plain

I thought that I would add my 2 cents in.

Has anyone given the thought to a "virtual course" on writing code for the DSP-93? Today you can find just about any subject being taught by email. Now I am aware that it will take some work to find an instructor. But surely there is already a basic college level course on DSP that we can adapt?

Now what I am envisioning is that once a week (or biweekly) the instructor emails the lesson to the students. The lesson is a combination of notes and reading from the assigned text along, along with a "lab" assignment. The

instructor collects questions from the students and answers them via email
either direct or to all, depending on the question. This continues until the
course is done.

If you are wondering if this will work, this is how the University of
Maryland handles its long distance education courses for the military
personnel overseas.

My final thought is this, if we want to know how to code the bloody thing
then it is up to us.

Paul Cecil
KA5FPT/DA2PC
Kaiserslautern Military Community

p.s. I have yet to finish building my unit so I can not help in coding it,
      yet.

A happy ColorQWK user!
(UNREGISTERED USER)

---
 * ColorQWK 1.1 [NR] *

17. PacComm KISS EPROM experiences?

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Mon, 11 Mar 1996 07:11:52 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b01ad69d67a915e@[204.251.33.13]>
Rendered body type: text/plain

What has been experienced by users of the new PacComm KISS EPROM recently
posted for the PacComm DSP-93 TNC?

Problems, successes, comparison to prior TNC's (not the DSP-93/TNC)?

Ron W5RKN

also:
rparsons@bga.com

18. Re: [DSP-93:2031] Future of D

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Mon, 11 Mar 1996 10:27:46 -0500 (EST)
To: dsp-93@tapr.org
Message-ID: <199603111527.KAA09809@camel.campbell.edu>
Rendered body type: text/plain

I would most certainly enroll in such a course!

> I thought that I would add my 2 cents in.
>
> Has anyone given the thought to a "virtual course" on writing code for the
> DSP-93? Today you can find just about any subject being taught by email. Now
> I am aware that it will take some work to find an instructor. But surely
> there is already a basic college level course on DSP that we can adapt?
//
>
> Paul Cecil
> KA5FPT/DA2PC
> Kaiserslautern Military Community
>
> p.s. I have yet to finish building my unit so I can not help in coding it,
>   yet.
>
>
> A happy ColorQWK user!
> (UNREGISTERED USER)
>
>
> ---
> * ColorQWK 1.1 [NR] *
>
>

--
Mark L. Hammond, KC4EBR

Campbell University
Department of Biology

19. Re: [DSP-93:2032] PacComm KISS EPROM experiences?

From: Charles Yaciw <yaciw@ct.net>
Date: Mon, 11 Mar 1996 11:47:28 -0500
To: dsp-93@tapr.org
Message-ID: <31445920.134B@ct.net>
Rendered body type: text/plain

Ronald G. Parsons wrote:
>
> What has been experienced by users of the new PacComm KISS EPROM recently
> posted for the PacComm DSP-93 TNC?
>
> Problems, successes, comparison to prior TNC's (not the DSP-93/TNC)?
>
> Ron W5RKN
>
> also:
> rparsons@bga.com

****
Hi Ron..
KISS seems to be working ok but haven't used it for more than a couple
of days. The TNC board itself has problems which in my opinion still
render it useless....
Problem 1..
The TNC (bbram?) will not retain non-default parms for more than about a
half hour. Since I live in a high storm area I don't leave the gear on
when I am not around to pull plugs!
Problem 2...
PASSTHRU- will not DSPLOAD obj files from the DOS cmd line-period-.
I can manually load the obj files just fine using D93WE. However, not
being able to autoload btch/PIF files has again relegated the DSP93 to
the dust collection shelf..sigh
73 Chuck K4IL, Lake Placid, FL

20. New technology

From: Alan Bloom <alanb@polecat.sr.hp.com>
Date: Mon, 11 Mar 1996 11:12:01 -0800 (PST)
To: dsp-93@tapr.org
Message-ID: <199603111912.AA002941522@polecat.sr.hp.com>
Rendered body type: text/plain

Fermax.esp@vlc.servicom.es wrote:

> with the proliferation
> of SMD components and LSI circuits, it is not possible to repair (nor
> understand!) the internals of transceivers and other equipment.

I'm old enough to remember when hams were complaining about how these
new-fangled transistors were making it impossible to work on or understand
"modern" ham radio equipment. Tubes were so much more forgiving! And
how could anyone work on those printed-circuit boards? One touch of a
300-watt soldering iron and the foil would just disappear!

I thought the same way about surface-mount components until I actually
had to start working with them. It isn't nearly as bad as I thought.
In some ways it's actually easier to homebrew with surface-mount devices
since you don't have to drill the PC board. Circuits with not too many
traces (most RF circuitry) can be fabricated with a blank piece of PC
board material and an Exacto knife. You do need the proper soldering
tools. Just as the old timer's 300-watt iron didn't work on early PC
boards, you need a special fine-tip iron to work on SMDs.

"Jim Lynch" <k4gvo@america.net> wrote:

> I opened one of the texts suggested as
> introductory reading by someone a while back and decided I'd have to
> go back to school for a couple of years just to understand the
> introduction. This stuff is for MSEE candidates, not laymen. I sure
> wish someone would write a "DSP for dummies".

Charles Stampf <hinces01@hinserv1.hin.state.ny.us> wrote:

> Ditto. I've tried the manuals and suggested references and have also
> found them to be above my head.

I have often thought that DSP is not nearly as difficult as people think.
The principles are pretty simple. It ought to be possible to do quite a
bit without having an engineering background. I was thinking about
submitting a QST article about designing simple filters (FIR and IIR)
using DSP techniques. It's actually more intuitive, and takes less math,
than designing similar filters using coils and capacitors. I'm not sure
what to do about programming examples using specific DSP chips. I'm most
familiar with the Analog Devices 21xx family. Perhaps by adding plenty of
comments it could be made understandable by people familiar with other chips.

Would an article like that be helpful?

Alan Bloom N1AL

21. Re: [DSP-93:2035] New technology

From: "Steven R. Bible" <srbible@mindport.net>
Date: Mon, 11 Mar 1996 17:10:40 -0500
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960311221040.0069c2c8@mindport.net>
Rendered body type: text/plain

>I have often thought that DSP is not nearly as difficult as people think.
>The principles are pretty simple. It ought to be possible to do quite a
>bit without having an engineering background. I was thinking about
>submitting a QST article about designing simple filters (FIR and IIR)
>using DSP techniques. It's actually more intuitive, and takes less math,
>than designing similar filters using coils and capacitors. I'm not sure
>what to do about programming examples using specific DSP chips. I'm most
>familiar with the Analog Devices 21xx family. Perhaps by adding plenty of
>comments it could be made understandable by people familiar with other chips.
>
>Would an article like that be helpful?

Yes it would. However, might I suggest that specific code examples not be
given. Instead, use algorithms and p-code in the article. This way your
ideas can be coded to any platform - DSP chip or general purpose uCPU.

 - Steve, N7HPR

srbible@mindport.net
n7hpr@amsat.org
n7hpr@tapr.org

22. Re: [DSP-93:2036] Re: New technology

From: Greg Jones <wd5ivd@tapr.org>
Date: Mon, 11 Mar 1996 19:42:15 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199603120142.TAA15163@tapr.org>
Rendered body type: text/plain

We would love to publish it in the PSR also.

Greg

>
>
> >I have often thought that DSP is not nearly as difficult as people think.
> >The principles are pretty simple. It ought to be possible to do quite a
> >bit without having an engineering background. I was thinking about
> >submitting a QST article about designing simple filters (FIR and IIR)
> >using DSP techniques. It's actually more intuitive, and takes less math,
> >than designing similar filters using coils and capacitors. I'm not sure
> >what to do about programming examples using specific DSP chips. I'm most
> >familiar with the Analog Devices 21xx family. Perhaps by adding plenty of
> >comments it could be made understandable by people familiar with other chips.
> >
> >Would an article like that be helpful?
>
>
> Yes it would. However, might I suggest that specific code examples not be
> given. Instead, use algorithms and p-code in the article. This way your
> ideas can be coded to any platform - DSP chip or general purpose uCPU.

>
>
> - Steve, N7HPR
>
> srbible@mindport.net
> n7hpr@amsat.org
> n7hpr@tapr.org
>
>

23. Re: [DSP-93:2035] New technology

From: k4gvo@america.net (Jim Lynch)
Date: Mon, 11 Mar 1996 20:56:24 -0500
To: dsp-93@tapr.org, dsp-93@tapr.org
Message-ID: <199603120200.UAA16058@tapr.org>
Rendered body type: text/plain

At 01:15 PM 3/11/96, Alan Bloom wrote:
>Fermax.esp@vlc.servicom.es wrote:
>
(snip)
>"Jim Lynch" <k4gvo@america.net> wrote:
>
>> I opened one of the texts suggested as
>> introductory reading by someone a while back and decided I'd have to
>> go back to school for a couple of years just to understand the
>> introduction. This stuff is for MSEE candidates, not laymen. I sure
>> wish someone would write a "DSP for dummies".
>
>Charles Stampf <hinces01@hinserv1.hin.state.ny.us> wrote:
>
>> Ditto. I've tried the manuals and suggested references and have also
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>The principles are pretty simple. It ought to be possible to do quite a
>bit without having an engineering background. I was thinking about
>submitting a QST article about designing simple filters (FIR and IIR)
>using DSP techniques. It's actually more intuitive, and takes less math,
>than designing similar filters using coils and capacitors. I'm not sure
>what to do about programming examples using specific DSP chips. I'm most
>familiar with the Analog Devices 21xx family. Perhaps by adding plenty of
>comments it could be made understandable by people familiar with other chips.
>
>Would an article like that be helpful?
Hi, Alan,

In my opinion, yes. I think I could work out the details of a specific
chip, if I had the fundamentals. It's like trying to write a checkbook
program before you've ever had a checkbook and learned how to keep up with
it, reconcile, etc.
>
>Alan Bloom N1AL
>
>
Thanks,
Jim.

24. Re: New Technology

From: Alan Bloom <alanb@polecat.sr.hp.com>
Date: Tue, 12 Mar 1996 09:44:40 -0800 (PST)
To: dsp-93@tapr.org
Message-ID: <199603121744.AA034592680@polecat.sr.hp.com>
Rendered body type: text/plain

k4gvo@america.net (Jim Lynch) wrote:

> >Would an article like that be helpful?

> In my opinion, yes. I think I could work out the details of a specific
> chip, if I had the fundamentals. It's like trying to write a checkbook
> program before you've ever had a checkbook and learned how to keep up with
> it, reconcile, etc.

Uh, oh. Maybe I'm not the person to write such an article.
(I never can balance my checkbook! :=)

"Steven R. Bible" <srbible@mindport.net> wrote:

> I suggest that specific code examples not be
> given. Instead, use algorithms and p-code in the article. This way your
> ideas can be coded to any platform - DSP chip or general purpose uCPU.

I've never been a big fan of p-code. It's often not much easier to
understand than real code, and real code has the advantage that it can
be tested. As a reader, if I'm going to the trouble to figure out a
computer program, it's nice to have some confidence that it is correct.

I think a reasonable compromise is to do a good job describing the
algorithm with words and pictures (flow charts, etc.) and then give a
fully-tested example in well-documented source code.

Al N1AL

25. DSP Books

From: DHaselwood@aol.com
Date: Tue, 12 Mar 1996 17:06:20 -0500
To: DSP-93@tapr.org
Message-ID: <960312170619_166917710@mail06.mail.aol.com>
Rendered body type: text/plain

Re: DSP-93:2022,2023, 2024

In case you are interested ordering the book "PC-DSP" --
Phone: 1-800-947-7700
ISBN number: 0133281396
Price: $42
Note: the title is long and ends with PC-DSP; something like, "A Laboratory
Approach...PC-DSP 3.5"

The brief writeup by Steve, G3YDV / NM2Y, dsp@nbn.net, sounded good so I
ordered a copy but haven't received it yet.

Don

26. More DSP Books

From: Tim Baggett <tim@NMSU.Edu>
Date: Tue, 12 Mar 1996 18:32:01 -0700 (MST)
To: dsp-93@tapr.org
Message-ID: <Pine.SUN.3.91.960312181627.11987A-100000@wilma>
Rendered body type: text/plain

Re: DSP-93:2022,2023, 2024, 2040

On Tue, 12 Mar 1996 DHaselwood@aol.com wrote:

<snip>
> Note: the title is long and ends with PC-DSP; something like, "A Laboratory
> Approach...PC-DSP 3.5"
>
<snip>
> Don

Hi Don, and others:

I was recently lost in the Stanford Univ bookstore for an afternoon. Wow,
amazing place. Blows our puny NMSU bookstore away! Among the tons of EE
textbooks, DSP and comm books in particular, I thumbed through the
above book Don mentioned. It appeared very well written to me, and I
give it a thumbs up.

In addition, For someone who may be into a little more self punishment, I
would recommend the following text I also discovered at the Stanford
bookstore:

Title: DSP in Communication Systems
Author: Marvin E. Frerking (Maybe Ferking? Can't read my writing)
Publisher: Van Nostrand Reinhold, NY, 1994

In the short time I read through the book, It cleared up a lot of PLL
implementation questions I had. It is written from a practical
approach specifically for what we are interested in using DSP for -
communications. It also went through some analog communications.

I didn't get to spend near as much time reading this book as I wish I
could have. I was seriously thinking of purchasing the book on the spot,
but that could have had serious how I got back home :) (student budget ya
know!)

Tim, AA5DF

New Mexico State University, Las Cruces, NM
Internet: tim@nmsu.edu
AMPRnet: aa5df@armstrong.ampr.org

27. Re: [DSP-93:2040] DSP Books

From: "Steven R. Bible" <srbible@mindport.net>
Date: Tue, 12 Mar 1996 20:44:46 -0500
To: dsp-93@tapr.org
Message-ID: <1.5.4b11.32.19960313014446.00690bac@mindport.net>
Rendered body type: text/plain

Digital Signal Processing: A Laboratory Approach
Using PC-DSP (3-1/2 inch version), 2/e
by Oktay Alkin
Prentice Hall, 1994
ISBN: 0-13-328139-6

You can read about it from www.prenhall.com

  http://www.prenhall.com/~rich/013/328138/32813-8.html

I made a simple web page that is a bibliography of books on DSP, SS, and
Digital Comms. You can see it at:

  http://www.mindport.net/~srbible/biblio.html

The page will link you to the publishers web pages that describe the book.
I also list some technical bookstores that sell these books at the end of
the list.

- Steve N7HPR

At 04:13 PM 3/12/96 -0600, you wrote:
>Re: DSP-93:2022,2023, 2024
>
>In case you are interested ordering the book "PC-DSP" --
>Phone: 1-800-947-7700
>ISBN number: 0133281396
>Price: $42
>Note: the title is long and ends with PC-DSP; something like, "A Laboratory
>Approach...PC-DSP 3.5"
>
>The brief writeup by Steve, G3YDV / NM2Y, dsp@nbn.net, sounded good so I
>ordered a copy but haven't received it yet.
>
>Don
>
>
>

 - Steve, N7HPR

srbible@mindport.net
n7hpr@amsat.org
n7hpr@tapr.org

28. [HFSIG:967] DSP-93 version HF Channel simulator success (fwd)

From: Greg Jones <wd5ivd@tapr.org>
Date: Wed, 13 Mar 1996 04:59:00 -0600 (CST)
To: dsp-93@tapr.org (DSP-93 Build)
Message-ID: <199603131059.EAA00297@tapr.org>
Rendered body type: text/plain

Forwarded message:
>From hfsig@tapr.org Wed Mar 13 01:30:40 1996
Date: Wed, 13 Mar 1996 01:13:34 -0600 (CST)
Message-Id: <9603130700.AA09725@ucs.orst.edu>
Reply-To: hfsig@tapr.org
Originator: hfsig@tapr.org
Sender: hfsig@tapr.org
Precedence: bulk
From: forrerj@ucs.orst.edu (Johan Forrer)

To: hfsig@tapr.org
Subject: [HFSIG:967] DSP-93 version HF Channel simulator success
X-Listprocessor-Version: 6.0 -- ListProcessor by Anastasios Kotsikonas
X-Comment: Tucson Amateur Packet Radio HF Special Interest Group
Content-Type: text/plain; charset="us-ascii"
X-Mailer: Windows Eudora Version 1.4.4

Hi all,

I thought that I would pass on the good news that the HF simulator code originally contributed by Alexander, DL8AAU, is now also working very nicely on the DSP-93.

With the help of Alexander and Juergen, DG1SCR, who made it possble to run the code the TI 320C25, it still was quite a challenge to get it to run within the contraints of the 'C25.

When playing a constant carrier into the input, the output really sounds like a dead carrier on HF with the typical fading and doppler on the signal.

For those that joined HFSIG recently - the HF channel simulator is an implementation of the Watterson ionospheric model as described in the CCIR recommendations. It allows several different variations of ionospheric conditions to be simulated in real time and because the conditions are repeatable, remains the ideal way to evaluate modem performance under different conditions.

There remains a bit more work to be done - all I can say is:
Congratulations and good work Alexander and Juergen!

--Johan, KC7WW

29. RE: [DSP-93:2027] RE: Future of DSP-93

From: Doug Howard - KG5OA <dhoward@txcc.net>
Date: Sat, 16 Mar 1996 12:42:14 +0000
To: dsp-93@tapr.org
Message-ID: <199603161244.GAA12149@txcc.net>
Rendered body type: text/plain

>From: "White, Rosalie, WA1STO" <rwhite@arrl.org>
>To: Doug Howard - KG5OA <dhoward@txcc.net>
>Cc: "Bloom, Jon, KE3Z" <jbloom@arrl.org>,
>   "Comstock, Tom (West Gulf Dir)" <4240053@mcimail.com>
>Subject: RE: [DSP-93:2027] RE: Future of DSP-93
>Date: Thu, 14 Mar 96 09:45:00 EST
>Encoding: 61 TEXT
>
>
>Hi Doug,
>   We got an offer from a ham who did videotaping as a small part of his
>job (ie he wasn't a professional cameraman) to tape Jon's last DSP Workshop;
>we paid for his expenses to be there, and somewhat for his editing time.
> The fellow couldn't bring all of the equipment to the workshop that he'd
>originally thought he'd be able to, and couldn't easily get more, since he
>was driving 5 hours to the convention site. What I'm saying is that we
>couldn't sell the video as a commercial product because it's not quite good
>enough. The first 5 minutes, the fellow had a bit of set-up problems with
>the audio and tracking. He'd planned to edit in close-up shots of Jon's
>vu-graphs, but after the convention, he could only find small portions of
>time to do editing to the 5 hours of tape. So he decided to leave in the
>shots of the vu-graphs on the wall--they're a little hard to read at times.
> But Jon is a great teacher, and the tape is quite useful to someone who
>isn't a stickler for wonderful cinematography.
>   We added the tape to our video lending library last year, but it wasn't
>super popular with clubs, because it's 4 hours long. This year, we've gone
>to a new library system, where we offer 2 hours of related programs on each
>of 8 different tapes, for $12 (includes shipping and handling), and the
>purchaser keeps the tape forever. If we had paid a professional a lot of
>money to tape Jon's workshop, we could have added his tape to this series.
> At this point, I would be willing to sell the leftover tapes from the
>lending library (about 6 left) to people who know about the tape and want
>it, but we couldn't advertise it since there's not many left.
>   73, Rosalie, WA1STO
> ----------
>From: Doug Howard - KG5OA
>To: rwhite
>Subject: [DSP-93:2027] RE: Future of DSP-93
>Date: Saturday, March 09, 1996 2:17PM
>

>Return-Path: <dhoward@txcc.net>
>
>Rosalie,
>Can you bring us (the DSP-93 SIG) up to date on this item? Thanks in
>advance.
>
>73, Doug - KG5OA
> ---------------------------------
>>Date: Sat, 9 Mar 1996 07:07:47 -0600 (CST)
>>Reply-To: dsp-93@tapr.org
>>Originator: dsp-93@tapr.org
>>Sender: dsp-93@tapr.org
>>From: Jon Bloom <jbloom@nai.net>
>>To: dsp-93@tapr.org
>>Subject: [DSP-93:2027] RE: Future of DSP-93
>>X-Listprocessor-Version: 6.0 -- ListProcessor by Anastasios Kotsikonas
>>X-Comment: Tucson Amateur Packet Radio DSP-93 Kit SIG
>>
>>Greg Jones[SMTP:wd5ivd@tapr.org] wrote:
>>>Jon Bloom, at the ARRL, developed a workshop for DSP development, and
>they(ARRL) were doing a video tape of it, but I don't know where it stands.
> I
>>>have asked Jon about it. If they have it -- we will work on getting it
>and
>>>distributing it in some fashion if possible.
>>
>>You need to talk to Rosalie White (rwhite@arrl.org) about that.
>>
>>-- Jon, KE3Z
>
>

30. Re: [DSP-93:2044] RE: Future of DSP-93

From: Greg Jones <wd5ivd@tapr.org>
Date: Sat, 16 Mar 1996 12:32:48 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199603161832.MAA23143@tapr.org>
Rendered body type: text/plain

Hi Doug,

I have spoken to Rosalie and we are working on getting the master of Jon's tape so that we can remaster it with the overhead shots of the vu-graphs and then make it available as part of somethng else.

I'll let the group know when I hear back from the league. They only have a few sets of the current version, from which I understand have a few problems. The fellow they got to tape the workshop did it in VHS (not SVHS, or high-8 or Beta-SP), but VHS, so remastering might have some limitations.

Cheers - Greg

31. [HFSIG:976] HF Simulator Examples uploaded (fwd)

From: Greg Jones <wd5ivd@tapr.org>
Date: Sat, 16 Mar 1996 12:38:04 -0600 (CST)
To: dsp-93@tapr.org (DSP-93 Build)
Message-ID: <199603161838.MAA24049@tapr.org>
Rendered body type: text/plain

Forwarded message:
>From hfsig@tapr.org Sat Mar 16 12:09:14 1996
Date: Sat, 16 Mar 1996 11:49:25 -0600 (CST)
Message-Id: <9603161727.AA21829@ucs.orst.edu>
Reply-To: hfsig@tapr.org
Originator: hfsig@tapr.org
Sender: hfsig@tapr.org
Precedence: bulk
From: forrerj@ucs.orst.edu (Johan Forrer)
To: hfsig@tapr.org
Subject: [HFSIG:976] HF Simulator Examples uploaded
X-Listprocessor-Version: 6.0 -- ListProcessor by Anastasios Kotsikonas
X-Comment: Tucson Amateur Packet Radio HF Special Interest Group
Content-Type: text/plain; charset="us-ascii"
X-Mailer: Windows Eudora Version 1.4.4

Hi,

I have made a couple of examples of HF channel simulation for use on the DSP-93. It consists of flat and selective fading conditions of good,

moderate, and poor severity. These are on the HFSIG upload area as
"SIMTEST.TXT" and "SIMTEST.ZIP"

These are loadable objects that you load with the DSP-93's "DSPLOAD"
program. If you have a DSP-93, please try it - we will apprecaite some feedback.

73's and good luck.

--Johan, KC7WW

32. DSP-93 HF Simulators

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 17 Mar 1996 02:03:27 +0000
To: dsp-93@tapr.org, hfsig@tapr.org
Message-ID: <1.5.4b12.32.19960317020327.0067806c@camel.campbell.edu>
Rendered body type: text/plain

Hi Johan,

I tried the three simulations on my DSP-93. Sounds pretty nifty. I
listened to each of them on a variety of audio signals on my IC-706--2M
repeater(!), FM white noise, HF SSB white noise, hf digital signals, etc.

Not sure what kind of feedback you want, but the simulators do a great
representation to my ears, at least, of sounding like a variety of HF band
conditions--fades, dips, multipath, etc.

(btw, I'm not on the hfsig mailing group--only the dsp-93 group).

>Hi,
>
>I have made a couple of examples of HF channel simulation for use on the
>DSP-93. It consists of flat and selective fading conditions of good,
>moderate, and poor severity. These are on the HFSIG upload area as
>"SIMTEST.TXT" and "SIMTEST.ZIP"
>
>These are loadable objects that you load with the DSP-93's "DSPLOAD"
>program. If you have a DSP-93, please try it - we will apprecaite some
feedback.
>
>73's and good luck.
>
>--Johan, KC7WW
>
>
>
>

Mark L. Hammond   [KC4EBR]

33. Dayton attendees?

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Mon, 18 Mar 1996 01:18:16 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b12.32.19960318011816.0067dc6c@camel.campbell.edu>
Rendered body type: text/plain

Hey Gang,

Anybody have plans to attend the Dayton Hamvention on Friday (the big TAPR
day and Packet Bash?).

I think I should be able to be there!

Mark L. Hammond   [KC4EBR]

34. Re: [DSP-93:2048] Dayton attendees?

From: Greg Jones <wd5ivd@tapr.org>
Date: Sun, 17 Mar 1996 19:43:38 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199603180143.TAA25618@tapr.org>
Rendered body type: text/plain

Hi Mark.

For some strange reason I think I'll be there also :-)

I am planning on recording all the Friday session so that we can make them
available on the web site afterwards.

greg

>
> Hey Gang,
>
> Anybody have plans to attend the Dayton Hamvention on Friday (the big TAPR
> day and Packet Bash?).
>
> I think I should be able to be there!
>
>
> Mark L. Hammond   [KC4EBR]
>
>

35. Re: [DSP-93:2048] Dayton attendees?

From: xbrucex <xbrucex@popmail.mcs.net>
Date: Sun, 17 Mar 1996 20:34:04 -0600
To: dsp-93@tapr.org
Message-ID: <199603180238.UAA01068@kitten.mcs.com>
Rendered body type: text/plain

I plan on attending.

Bruce K9BC

At 19:22 3/17/96 -0600, you wrote:
>Hey Gang,
>
>Anybody have plans to attend the Dayton Hamvention on Friday (the big TAPR
>day and Packet Bash?).
>
>I think I should be able to be there!
>
>
>Mark L. Hammond   [KC4EBR]
>
>

36. Re: [DSP-93:2048] Dayton attendees?

From: Doug Rorem <rorem@cherokee.eecs.uic.edu>
Date: Sun, 17 Mar 1996 21:50:10 -0600
To: dsp-93@tapr.org
Message-ID: <rorem-9602180350.AA00039242@cherokee.eecs.uic.edu>
Rendered body type: text/plain

Mark L. Hammond   [KC4EBR] writes:

>Anybody have plans to attend the Dayton Hamvention on Friday (the big TAPR
                                                        ******
>day and Packet Bash?).

This is scheduled for Friday May 17- Sunday May 19th right?

--
Doug Rorem
University of Illinois at Chicago   (312)-996-5439 [voice]
EECS Department RM 1120   (312)-413-1065 [fax]
851 S. Morgan Street   (708)-996-2226 [pager]
Chicago, IL 60607-7053   rorem@uic.edu

37. PSK93R1/2Y.obj

From: "Lawrence F. Johnston" <ljohnsto@carbon.cudenver.edu>
Date: Mon, 18 Mar 1996 07:53:04 -0700 (MST)
To: dsp-93@tapr.org
Message-ID: <Pine.OSF.3.91.960318075012.4684A-100000@carbon.cudenver.edu>
Rendered body type: text/plain

Where can I find these .obj files?

Larry (W0EIE)

38. DSP-93 For Sale

From: robertsm@jsc.mil
Date: Mon, 18 Mar 1996 10:40:28 -0500
To: dsp-93@tapr.org
Message-ID: <96Mar18.104558est.6339@annap2.jsc.mil>
Rendered body type: text/plain

I have an assembled and working DSP-93 for sale for $400.
 Mel Roberts W3MR robertsm@jsc.mil

39. DSP for Dummies

From: "Robert L. Smith" <bobsmith@i2020.net>
Date: Mon, 18 Mar 1996 11:10:35 -0500
To: dsp-93@tapr.org
Message-ID: <9603181930.AA04236@mail>
Rendered body type: text/plain

I sympathize with those trying to get their hands around DSP design skills.
MY 30+ year old math skills did not anticipate the DSP revolution or the
digital domain so I too have been pulling my hair out.

The closest thing I have found to "DSP for Dummies" is a wonderful little
book titled "DIGITAL SIGNAL PROCESSING and the microcontroller" by Mark
McQuilken of Motorola and James LeBlanc of Cornell University, that was
included in my Motorola MC68HC16 DSP evaluation kit. It has lots of
pictures and very little math. What math is included is provided mostly to
establish subject
background. The following quote is from the PREFACE --

'DIGITAL SIGNAL PROCESSING AND THE MICROCONTROLLER" is a preliminary edition
especially developed as an education tool and specifically to be part tof
the "HC16 TOOL KIT". Motorola plans to have future editions available,
which will be published by Prentice-Hall..."

The book includes no other information as to source or an ISBN, etc.
Perhaps someone with close ties to Motorola can track down its current
status. I would also appreciate hearing from anyone who develops a source
because I want to get an up-to-date edition.

  73 de Bob Smith, wa4ypv   bobsmith@i2020.net

40. Re: [DSP-93:2052] PSK93R1/2Y.obj

From: hammond@camel.campbell.edu (Mark L. Hammond)
Date: Mon, 18 Mar 1996 13:39:08 -0500 (EST)
To: dsp-93@tapr.org
Message-ID: <v01540b02ad7317a7a58e@[152.38.1.2]>
Rendered body type: text/plain

Hi Larry,

Using anonymous login to ftp.tapr.org, look under:

/tapr/dsp93/diskettes

Those PSK files *should* be in either the diskettes that shipped with your
kit (the "disk images" are available in zipped form), or in the
"update1.zip" file located there.

I'm at work and can't tell you which one...but they should be in one of the
.zip files in that directory.

>Where can I find these .obj files?
>
>Larry (W0EIE)

Mark L. Hammond [KC4EBR]
Campbell University

41. HF simulation code

From: hammond@camel.campbell.edu (Mark L. Hammond)
Date: Mon, 18 Mar 1996 13:52:06 -0500 (EST)
To: dsp-93@tapr.org
Message-ID: <v01540b05ad731b56833a@[152.38.1.2]>
Rendered body type: text/plain

As for the files, check out:

/tapr/SIG/hfsig/upload/simtest.zip

Use regular old anonymous login to ftp.tapr.org to get the file.

>Hi Mark--
>

//
>Also, I'd like to get the HF simulations that Johann has been working on, but I
>don't know how to get to the "HFSIG upload area." Can you enlighten me?
>
>Thanks and 73,
>
>Stan
>KD6CVL

Mark L. Hammond [KC4EBR]
Campbell University

Mark L. Hammond [KC4EBR]
Campbell University

42. Re: [DSP-93:2056] HF simulation code

From: Greg Jones <wd5ivd@tapr.org>
Date: Mon, 18 Mar 1996 13:20:55 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199603181920.NAA20419@tapr.org>
Rendered body type: text/plain

Don't forget you can get to it via the Web page also. Go to the SIG page
and select HF SIG area.

Cheers - Greg

>
> As for the files, check out:
>
> /tapr/SIG/hfsig/upload/simtest.zip
>
> Use regular old anonymous login to ftp.tapr.org to get the file.
>
> >Hi Mark--
> >
>
> //
> >Also, I'd like to get the HF simulations that Johann has been working on, but I
> >don't know how to get to the "HFSIG upload area." Can you enlighten me?
> >
> >Thanks and 73,
> >
> >Stan
> >KD6CVL
>
> --------------------------
> Mark L. Hammond [KC4EBR]
> Campbell University
>
> --------------------------
> Mark L. Hammond [KC4EBR]
> Campbell University
>
>
>

43. Dayton ?

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 19 Mar 1996 01:16:05 -0600 (CST)
To: dsp-93@tapr.org (DSP-93 Build)
Message-ID: <199603190716.BAA05973@tapr.org>
Rendered body type: text/plain

Should be try to arrange an informal meeting on Friday after dinner
and speaker for DSP-93 people to gather and chat ?

Als -- has anyone looked at the HF SIG DSP library and examined what might
be ported to the DSP-93 ?

Greg

44. DSP-93 meeting at Dayton?

From: "In space, no one can hear you snore" <DSCHULTZ@sssp.gsfc.nasa.gov>
Date: Tue, 19 Mar 1996 20:12:16 GMT
To: dsp-93@tapr.org
Cc: DSCHULTZ@sssp.gsfc.nasa.gov
Message-ID: <960319201216.157c@sssp.gsfc.nasa.gov>
Rendered body type: text/plain

>Should we try to arrange an informal meeting on Friday after dinner
>and speaker for DSP-93 people to gather and chat ?

Could we pick a time for a DSP-93 meeting that doesn't conflict with
the Amsat dinner on Friday night? Or maybe TAPR and Amsat ought to meet
at the same place, I imagine many people belong to both groups....

Dan Schultz N8FGV

45. Re: [DSP-93:2048] Dayton attendees?

From: Roy Welch <rdw@crl.com>
Date: Tue, 19 Mar 1996 12:04:49 -0800 (PST)
To: dsp-93@tapr.org
Message-ID: <Pine.SUN.3.91.960319120323.29425B-100000@crl12.crl.com>
Rendered body type: text/plain

Hi Mark. I'll be there starting Thursday evening, but the AMSAT dinner
will also be on Friday evening. Come by the AMSAT booth and say hi.
Where will you be, in the TAPR booth. If so I'll drop by there .

73, Roy

On Sun, 17 Mar 1996, Mark L. Hammond wrote:

> Hey Gang,
>
> Anybody have plans to attend the Dayton Hamvention on Friday (the big TAPR
> day and Packet Bash?).
>
> I think I should be able to be there!
>
>
> Mark L. Hammond   [KC4EBR]
>
>

46. Re: [DSP-93:2060] Re: Dayton attendees?

From: Roy Davis x3812 <rdavis@qualcomm.com>
Date: Tue, 19 Mar 1996 16:29:03 -0800
To: dsp-93@tapr.org
Message-ID: <199603200029.QAA07236@bush.qualcomm.com>
Rendered body type: text/plain

>> Anybody have plans to attend the Dayton Hamvention on Friday (the big TAPR
>> day and Packet Bash?).

I'll be arriving Wednesday night, so I can check out the airplane museum at
Wright-Pat, and all four days of the Hamvention.

Roy Davis, WB9RKN

47. Re: [DSP-93:2059] DSP-93 meeting at Dayton?

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 19 Mar 1996 19:33:54 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199603200133.TAA26698@tapr.org>
Rendered body type: text/plain

I am not sure where AMSAT meets. The facility we have now could easily
hoild 400 people...so something to think about coordinating for 1997.

Since you are active in AMSAT stuff Dan -- why don't we try to see what we
can shape up.

Greg

>
> >Should we try to arrange an informal meeting on Friday after dinner
> >and speaker for DSP-93 people to gather and chat ?
>

> Could we pick a time for a DSP-93 meeting that doesn't conflict with
> the Amsat dinner on Friday night? Or maybe TAPR and Amsat ought to meet
> at the same place, I imagine many people belong to both groups....
>
> Dan Schultz N8FGV
>
>

48. Reset chip

From: Ian Drage <idrage@es.co.nz>
Date: Wed, 20 Mar 1996 22:22:26 +1200
To: dsp-93@tapr.org
Message-ID: <1.5.4b12.32.19960320102226.0069ec28@es.co.nz>
Rendered body type: text/plain

Although my kit was from the first batch it took me quite a while to get
round to assembling it. Having finally found the time it looks like I have a
dead MAX692 as pin 7 does not change state when pressing reset button. By
dropping the reset line manually I can get the dsp to reset.

My problem is finding a source for the MAX692 chip, my normal supplier of
hard to find parts has failed to turn up anything. Any info would be
appreciated.
Thanks

Ian, zl4til

Ian Drage, idrage@es.co.nz
 Invercargill, New Zealand
---

49. Re: [DSP-93:2055] Re: PSK93R1/2Y.obj

From: "Lawrence F. Johnston" <ljohnsto@carbon.cudenver.edu>
Date: Wed, 20 Mar 1996 07:55:31 -0700 (MST)
To: dsp-93@tapr.org
Message-ID: <Pine.OSF.3.91.960320075419.18403A@carbon.cudenver.edu>
Rendered body type: text/plain

I must be missing something very simple, but I still seem
to be unable to locate those files.

Would you please, when you have time, let me know where I
can locate them?

Thanks.

Larry

On Mon, 18 Mar
1996, Mark L. Hammond wrote:

> Hi Larry,
>
> Using anonymous login to ftp.tapr.org, look under:
>
> /tapr/dsp93/diskettes
>
> Those PSK files *should* be in either the diskettes that shipped with your
> kit (the "disk images" are available in zipped form), or in the
> "update1.zip" file located there.
>
> I'm at work and can't tell you which one...but they should be in one of the
> .zip files in that directory.
>
> >Where can I find these .obj files?
> >
> >Larry (W0EIE)
>
> --------------------------
> Mark L. Hammond [KC4EBR]
> Campbell University
>
>
>

50. Re: [DSP-93:2060] Re: Dayton attendees?

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Thu, 21 Mar 1996 02:14:53 +0000

To: dsp-93@tapr.org
Message-ID: <1.5.4b12.32.19960321021453.0067b768@camel.campbell.edu>
Rendered body type: text/plain

Hi Roy,

I plan to drive down for Friday only, mostly likely. My parents live about
3 or 4 hours away, so a day trip is in the plan.

Not planning on being any place particular. I'll be sure to stop by the
AMSAT booth and shake your hand!

At 14:23 3/19/96 -0600, you wrote:
>Hi Mark. I'll be there starting Thursday evening, but the AMSAT dinner
>will also be on Friday evening. Come by the AMSAT booth and say hi.
>Where will you be, in the TAPR booth. If so I'll drop by there .
>
>73, Roy
>
>On Sun, 17 Mar 1996, Mark L. Hammond wrote:
>
>> Hey Gang,
>>
>> Anybody have plans to attend the Dayton Hamvention on Friday (the big TAPR
>> day and Packet Bash?).
>>
>> I think I should be able to be there!
>>
>>
>> Mark L. Hammond   [KC4EBR]
>>
>>
>
>
>

Mark L. Hammond   [KC4EBR]

51. Re: PSK93R1/2Y.obj

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Thu, 21 Mar 1996 02:36:28 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4b12.32.19960321023628.0070c3b8@camel.campbell.edu>
Rendered body type: text/plain

Hi Larry,

The RSK93R1/2Y.obj files have been replaced. There are several versions for
YEASUs and KENWOOD/ICOMs. The new versions have more features, etc. than
the olders ones. Here is a snip of the current 1200 PSK modems (they may be
found in update1.zip in a file called new_psk2.zip):

Is there a reason you specifically need the PSKR1.2Y versions?

==========
ICOM/Kenwood standard (ground-to-tune) PSK modems (AO-16, etc.).
Update includes a brighter SmartTune light:

      PSK93R1K OBJ   5,003 07-29-95 11:57a - radio port 1
      PSK93R2K OBJ   5,003 07-29-95 11:57a - radio port 2

ICOM/Kenwood weak-signal PSK modem (AO-16, etc.). Update includes a
brighter SmartTune light, with the PLL gain increased and tuning
interlock disabled to improve lock recapture after a fade:

      PSK93R1L OBJ   4,999 07-29-95 11:57a - radio port 1
      PSK93R2L OBJ   4,999 07-29-95 11:57a - radio port 2

YAESU ground-to-tune standard PSK modems:

      PSK93R1Z OBJ   5,003 07-29-95 11:58a - radio port 1
      PSK93R2Z OBJ   5,003 07-29-95 11:58a - radio port 2

YAESU ground-to-tune weak signal PSK modems:

      PSK93R1W OBJ   4,999 07-29-95 11:58a - radio port 1
      PSK93R2W OBJ   4,999 07-29-95 11:58a - radio port 2

YAESU 5 V pulse-to-tune standard modems. TX output level tweaked

for use with the 736 back-panel data jack.

```
      PSK93X1A OBJ         5,060 09-04-95   7:19p - radio port 1
      PSK93X2A OBJ         5,060 09-04-95   7:20p - radio port 2

YAESU 5 V pulse-to-tune weak signal PSK modems, with tweaked TX.

      PSK93X1B OBJ         5,056 09-04-95   7:20a - radio port 1
      PSK93X2B OBJ         5,056 09-04-95   7:20p - radio port 2

LED definitions, etc. are the same as the prior PSK release.

========

At 08:57 3/20/96 -0600, you wrote:
>I must be missing something very simple, but I still seem
>to be unable to locate those files.
>
>Would you please, when you have time, let me know where I
>can locate them?
>
>Thanks.
>
>Larry
>
>On Mon, 18 Mar
>1996, Mark L. Hammond wrote:
>
>> Hi Larry,
>>
>> Using anonymous login to ftp.tapr.org, look under:
>>
>> /tapr/dsp93/diskettes
>>
>> Those PSK files *should* be in either the diskettes that shipped with your
>> kit (the "disk images" are available in zipped form), or in the
>> "update1.zip" file located there.
>>
>> I'm at work and can't tell you which one...but they should be in one of the
>> .zip files in that directory.
>>
>> >Where can I find these .obj files?
>> >
>> >Larry (W0EIE)
>>
>> --------------------------
>> Mark L. Hammond [KC4EBR]
>> Campbell University
>>
>>
>>
>>
>>
>>


Mark L. Hammond   [KC4EBR]
```

52. Re: [DSP-93:2066] Re: PSK93R1/2Y.obj

```
From: "Lawrence F. Johnston" <ljohnsto@carbon.cudenver.edu>
Date: Thu, 21 Mar 1996 09:47:08 -0700 (MST)
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <Pine.OSF.3.91.960321093707.24708C-100000@carbon.cudenver.edu>
Rendered body type: text/plain
```

Thanks for your reply.

I was simply trying to be sure I had the latest files, and on
page 26 of the most recent PSR (#61) it lists files it says are
the most current.

Several months ago I finished building and testing my DSP-93.
It passed all tests in the build manual, but I was not able to
get it to decode satellite info.

After much additional reading and studying, I'm trying to take one
small step at a time. Last week I finally got the DSP-93 working
perfectly on both transmit and receive for standard 1200 terrestrial

packet. In the process, I discovered something that surprised me.
Although I was able to receive the 1200 terrestrial okay, I was
unable to hold a connection even with a very close station. My
KAM worked fine with the same stations that the DSP could not hold
a connection. I finally switched antennas and the problem switched
TNCs. I was using a vertical antenna with the KAM, and the circular
polorized satellite antennas with the DSP. Even with only a mile
or two distance, the polarization made all the difference.

My next step will be to try to get my DSP-93 to work with a satellite.
Any suggestions as to which one I should start with?

My station consists of a FT736, RFC amps, 22C and 40CX antennas, MFJ
1274 (with appropriate mods), and WISP.

Thanks for your help.

Larry, W0EIE

53. Re: [DSP-93:2067] Re: PSK93R1/2Y.obj

From: hammond@camel.campbell.edu (Mark L. Hammond)
Date: Thu, 21 Mar 1996 14:48:40 -0500 (EST)
To: dsp-93@tapr.org
Message-ID: <v01540b02ad771b7dbfd0@[152.38.1.2]>
Rendered body type: text/plain

Hi Larry,

Glad to hear things are looking up for your DSP-93.

If you have made (or are WILLING to make) the 9600 bps mods to your FT-736
rig, I'd say jump right in with the 9600 birds. They certainly move lots
more data on a pass. Especially KO-23 with it's higher orbit...

The mod files are in disks that came with your DSP-93 ;-) (if I haven't
lost track of that file, too!).

>Thanks for your reply.
>
>I was simply trying to be sure I had the latest files, and on
>page 26 of the most recent PSR (#61) it lists files it says are
>the most current.
//snip
>
>My next step will be to try to get my DSP-93 to work with a satellite.
>Any suggestions as to which one I should start with?
>
>My station consists of a FT736, RFC amps, 22C and 40CX antennas, MFJ
>1274 (with appropriate mods), and WISP.
>
>Thanks for your help.
>
>Larry, W0EIE

Mark L. Hammond [KC4EBR]
Campbell University

54. Re: [DSP-93:2067] Re: PSK93R1/2Y.obj

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Thu, 21 Mar 1996 15:10:47 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b00ad7775b615f3@[204.251.33.7]>
Rendered body type: text/plain

...
>
>My next step will be to try to get my DSP-93 to work with a satellite.
>Any suggestions as to which one I should start with?
>
>My station consists of a FT736, RFC amps, 22C and 40CX antennas, MFJ
>1274 (with appropriate mods), and WISP.
>
>Thanks for your help.
>
>Larry, W0EIE

I'd suggest starting with one of the 9600 birds (UO-22, KO-23, KO-25 tho
off the air at the moment). Although you will have to modify your rig, the

mods are simple and well documented. Tuning is MUCH easier that for the
1200 birds.

Ron W5RKN

also:
rparsons@bga.com

55. help

From: Mike Kerry <100577.1452@compuserve.com>
Date: 21 Mar 96 18:22:39 EST
To: "(unknown)" <DSP-93@tapr.org>
Message-ID: <960321232238_100577.1452_GHW123-1@CompuServe.COM>
Rendered body type: text/plain

Can anyone tell me how do I :-

'do an anonymous login to ftp.tapr.org'

Tnx,

Confused of Sussex

Mike
G4BMK

56. Re: [DSP-93:2069] Re: PSK93R1/2Y.obj

From: "Lawrence F. Johnston" <ljohnsto@carbon.cudenver.edu>
Date: Thu, 21 Mar 1996 17:15:19 -0700 (MST)
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <Pine.OSF.3.91.960321170953.16063A-100000@carbon.cudenver.edu>
Rendered body type: text/plain

I made the mods for the 9600 operations on the FT736.

I'm not sure about the "KISS" mode, however. Do I need to
put the MFJ1274 in the KISS mode before I load the obj files
thru D93we?

And exactly which .obj file should I use for UO22, KO23, and
KO25?

My current assumption is that I would first load the DSP with
the appropriate .obj file, then place the MFJ1274 in the KISS
mode, then load WISP, then tune the appropriate frequency. Am
I at least heading in the right direction?

Larry, W0EIE

On Thu, 21 Mar 1996, Ronald G. Parsons wrote:

> ..
> >
> >My next step will be to try to get my DSP-93 to work with a satellite.
> >Any suggestions as to which one I should start with?
> >
> >My station consists of a FT736, RFC amps, 22C and 40CX antennas, MFJ
> >1274 (with appropriate mods), and WISP.
> >
> >Thanks for your help.
> >
> >Larry, W0EIE
>
> I'd suggest starting with one of the 9600 birds (UO-22, KO-23, KO-25 tho
> off the air at the moment). Although you will have to modify your rig, the
> mods are simple and well documented. Tuning is MUCH easier that for the
> 1200 birds.
>
>
> Ron W5RKN
>
> also:
> rparsons@bga.com
>
>
>

57. Re: [DSP-93:2070] help

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Thu, 21 Mar 1996 18:39:32 -0600
To: dsp-93@tapr.org
Cc: Mike Kerry <100577.1452@compuserve.com>
Message-ID: <v02140b02ad77a6c49c71@[204.251.33.16]>
Rendered body type: text/plain

>Can anyone tell me how do I :-
>
>'do an anonymous login to ftp.tapr.org'
>
>Tnx,
>
>Confused of Sussex
>
>Mike
>G4BMK

Host: ftp.tapr.org
User ID: anonymous
Password: <your e-mail address>

Easier, go through the TAPR Web page http://www.tapr.org/tapr/

Ron W5RKN

also:
rparsons@bga.com

58. Re: [DSP-93:2063] Reset chip

From: Bob Stricklin <bstrick@dallas.net>
Date: Thu, 21 Mar 1996 20:28:18 -0600
To: dsp-93@tapr.org
Message-ID: <2.2.32.19960322022818.002e1ea4@plano.net>
Rendered body type: text/plain

At 04:33 AM 3/20/96 -0600, you wrote:

Some early kits were shipped with a MAX692 and not a MAX692A. Pin 8 must be
grounded or the MAX692 will not work. Try grounding pin 8 of U116 and see if
this does not solve your problem.

>Although my kit was from the first batch it took me quite a while to get
>round to assembling it. Having finally found the time it looks like I have a
>dead MAX692 as pin 7 does not change state when pressing reset button. By
>dropping the reset line manually I can get the dsp to reset.
>
>My problem is finding a source for the MAX692 chip, my normal supplier of
>hard to find parts has failed to turn up anything. Any info would be
>appreciated.
>Thanks
>
>Ian, zl4til
>---
>Ian Drage, idrage@es.co.nz
> Invercargill, New Zealand
>---
>
>
>

Bob Stricklin, N5BRG
bstrick@dallas.net AKA: bstrick@plano.net   bstrick@tenet.edu
Dallas, Texas

59. Re: [DSP-93:2067] Re: PSK93R1/2Y.obj

From: Bob Stricklin <bstrick@dallas.net>
Date: Thu, 21 Mar 1996 20:30:46 -0600
To: dsp-93@tapr.org
Message-ID: <2.2.32.19960322023046.002e94d0@plano.net>
Rendered body type: text/plain

At 11:00 AM 3/21/96 -0600, you wrote:

>After much additional reading and studying, I'm trying to take one
>small step at a time. Last week I finally got the DSP-93 working
>perfectly on both transmit and receive for standard 1200 terrestrial
>packet. In the process, I discovered something that surprised me.
>Although I was able to receive the 1200 terrestrial okay, I was
>unable to hold a connection even with a very close station. My
>KAM worked fine with the same stations that the DSP could not hold
>a connection. I finally switched antennas and the problem switched
>TNCs. I was using a vertical antenna with the KAM, and the circular
>polorized satellite antennas with the DSP. Even with only a mile
>or two distance, the polarization made all the difference.
>

Sounds like you may be over driving the input to the DSP93. Changing
antennas may have just reduced you input
signal.

Bob Stricklin, N5BRG
bstrick@dallas.net AKA: bstrick@plano.net   bstrick@tenet.edu
Dallas, Texas

60. Re: [DSP-93:2070] help

From: "Mitch, WA4OSR" <fmitch@maf.mobile.al.us>
Date: Thu, 21 Mar 1996 20:33:53 -0600
To: dsp-93@tapr.org
Message-ID: <31521191.772A07C1@maf.mobile.al.us>
Rendered body type: text/plain

Mike Kerry wrote:
>
> Can anyone tell me how do I :-
>
> 'do an anonymous login to ftp.tapr.org'
>
> Tnx,
>
> Confused of Sussex
>
> Mike
> G4BMK

hi mike...

i am one of your fans... i have owned just about every rtty modem ever
built but my cri-200 & bmk-multy are my all time favorites!!!

to answer your question about logging on to tapr, i just tried it...

ftp ftp.tapr.org
log on as the user anonymous
give your email address as the password...

just the standard anonymous login, nothing different or special...

and btw, there is a very interesting article in the tapr packet status
register pub that i received yesterday... compares pactor with a kam to
pactor with standard rtty modem and bmk-multy... 3 guesses on which
setup worked the best!!!!!

i let my membership in bartg lapse... real chore to get a cheque in
pounds here, also costs extra arm & leg... bartg needs to arrange to
take credit cards for us dx'ers who want membership...

the highpoint of getting the bartg pub was your column...

i just upgraded my bmk-multy from steve in the last month or so... but i
haven't been on the air in a while... (been surfing the 'net :)

i just ordered johan's an-93 modem kit from tapr today to build up a
very small portable modem... i am planning on running rtty mobile to the
dayton hamfest this year...

if u get to the dayton hamfest, stop by the vibroplex booth, #303, i
would love to meet u...

mitch

wa4osr
The Vibroplex Co., Inc.
11 Midtown Park, E.
Mobile, AL 36606-4141 USA

61. Re: [DSP-93:2071] Re: PSK93R1/2Y.obj

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Thu, 21 Mar 1996 20:35:35 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b01ad77c100c660@[204.251.33.16]>
Rendered body type: text/plain

Larry, W0EIE

>I made the mods for the 9600 operations on the FT736.
>
>I'm not sure about the "KISS" mode, however. Do I need to
>put the MFJ1274 in the KISS mode before I load the obj files
>thru D93we?

No. You may load the obj files at any time prior to using it.

>And exactly which .obj file should I use for UO22, KO23, and
>KO25?

Any of the FSK modems. You may need to experiment to determine which is
best for your combination of radio/satellite.

>My current assumption is that I would first load the DSP with
>the appropriate .obj file, then place the MFJ1274 in the KISS
>mode, then load WISP, then tune the appropriate frequency. Am
>I at least heading in the right direction?

Almost. WiSP handles putting the TNC in KISS mode (and taking it out).

Load the DSP-93 obj files. Then run WiSP. Of course, you must tune the
frequency in there somewhere.

Ron W5RKN

also:
rparsons@bga.com

62. Building the DSP-93

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Thu, 21 Mar 1996 21:33:44 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b00ad77ce8df55d@[204.181.160.13]>
Rendered body type: text/plain

There seems to be a flurry of activity of kit building. Because of this, I
am posting the latest Build Updates from the first two runs.

If you have a problem, it is likely the solution is in one of these files.

Ron W5RKN

also:
rparsons@bga.com

63. Build Update - First Run

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Thu, 21 Mar 1996 21:33:48 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b02ad77cf12147f@[204.181.160.13]>
Rendered body type: text/plain

Date: Thu, 2 Feb 1995 16:23:52 -0600
Reply-To: dsp-93@tapr.org
Originator: dsp-93@tapr.org
Sender: dsp-93@tapr.org
Precedence: bulk
From: rparsons@bga.com (Ronald G. Parsons)
To: dsp-93@tapr.org

Subject: [DSP-93:295] Build Update 2 Feb 1995
X-Comment: Tucson Amateur Packet Radio DSP-93 Kit SIG
Status:

DSP-93 Build Suggestions
December '94 Production

Updated: 2 Feb 1995

We will try to update this message as the build happens and post it so ever
so often.

You can get copies of all past messages distributed on the dsp-93@tapr.org
list by sending mail to 'listserv@tapr.org', subject of 'list', message of
'index dsp-93'. This message will request a listing of all files in the
dsp-93 mail archive. To then request a specific month, send mail again to
'listserv@tapr.org', Subject of 'request', message of 'request dsp-93
filename', where filename is the name of the file in the dsp-93 area you
want to request (i.e. nov.94).

-=-=-=-=-=-=-= HERE'S YOUR CHANCE TO HELP THE GROUP =-=-=-=-=-=-=-

As you interface your DSP-93 to your radio, etc., how about writing up
your experiences, procedures, problems, etc. Post your results and we'll
collect them.

What would you like to see in an operations manual? Let me know and
I'll sign you up for a section or two.

-=-

February 2nd, 1995 Update Section

* C212 and C213 are reversed on schematic and build doc
We had a report of a discrepency between the schematic and the Board 2 silk
screen. The following is a suggestion from Bob, N5BRG.

>The C212 and C213 caps are reversed on the silk screen on the board. This
>means the 20p and 50p caps are also reversed. This may explain why Roy's
>unit was off frequency when he measured it.

>I suggest we reverse the schematics and the documentation. Post a note to
>change the caps on the next correction list. Not a critical problem but it
>may effect someone trying to operate above 19200 baud. Before reversing the
>caps you should pull U212 because it seems to be sensitive.

To reiterate, if you are not having problems currently with the DSP-93
serial port, this may not affect you unless you use baud rates higher than
19200. If you are having problems, or if you are still building the kit,
reverse C212 and C213.

Be especially careful with the crystal and the Startech UART and static.

* README.NOW file in diskettes
The README.NOW file on the distribution diskettes is formatted badly (there
are two CRs at each line end rather than CR,LF).

I have uploaded a correct version of it to ftp.tapr.org in the DSP93/UPLOAD
directory.

January 27th, 1995 Update Section

=+=+=+=+=+=+=+=+=+=+=+=+=+=+ WARNING +=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+
=+=+=+=+=+=+=+=+=+=+=+=+=+=+ WARNING +=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+

We have discovered an error in the port initialization code.

This is the procedure that initializes PTT and FREQ UP/DOWN at reset
and power-on times.

It turns out that PTT Port 1 ALWAYS initializes high.
PTT Port 2 and both UP/DOWN lines initialize "backwards", i.e.,
when you strap the their initialization lines (DSP-93 TNC pins 7, 16, 18)
low, the corresponding port initializes high, and vice versa.

Please be careful as this could cause your transmitter to key unexpectedly.

=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+ WARNING +=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+
=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+ WARNING +=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+

January 25th, 1995 Update Section

The references to R214 and R215 in FSK.DOC, PKT.DOC and TESTXXXX.DOC are
reversed. R215 (and R216) affects the input gain while R214 (and R213)
affects the output signal.

The connector referred to as J203 in TEXTXXXX.DOC actually referrs to JP203.

The test point labeled -9V will have closer to -13V on it.

January 16th, 1995 Update Section

* Pin 3 on DSP-93 TNC not at 5V
A pullup resistor was left off the DSP-93 Board 2 to pullup pin 3 on the
TNC connector (between U213 and U214). A solution is to solder a resistor
(about 10k ohms) on the bottom of Board 2 between pin 3 of the
TNC connector and U113 pin 20 (+5V). Be careful not to short either lead
to any uninsulated point on the bottom of the board.

* Power on and off caution
It is also important to note that the DSP-93 (as well as most other
radio modems) may cause your transmitter to go into transmit mode briefly
when the DSP-93 is powered on and/or powered off. This can occur even if
the initializations lines referred to in the "Radio Port Configuration
Notice" are properly configured. Take precautions so that your equipment
will not be damaged if this should occur.

* Another solution to the Icom up/down tuning line
As mentioned on pages 14 and 33 of the Assembly Manual, you were given
a work around for the Icom up/down tuning line by placing the resistors
in the cable to an Icom radio. If you will need this tuning arrangement,
another solution is to solder resistors R220 and R223 on to the bottom
of Board 2. Solder one of the resistors between the square pad of R223 and
U205 pin 6. Solder one of the resistors between the square pad of R220 and
U205 pin 8. Be careful not to short either lead to any uninsulated point
on the bottom of the board.

* R104 in parts and installation
>From ERRATA Sheet (dated 12/18/94)
In the parts list on page 3 and the build instructions on page 8, R104 is
described as a 50 ohm resistor (green-black-black-gold). It should have
been described as a 51 ohm resistor (green-brown-black-gold).

* Page 20 (volume control)
Page You may need to snap off or bend the antirotational tab of the front
panel pot when installing it so that it fits flat against the front panel.

January 14th, 1995 Update Section

* Spacers used between boards
It has come to the attention of the project that not all the spacers are the
same length. There is a difference of about 1mm in the two type of spacers.
If the builder has these slightly shorter spacers, then when the two boards
are stacked there will be a slight space between the top of the spacer and
the bottom of the top board when the interboard connectors are placed fully
into position. It is NOT suggested that the builder secure down the screws
so as to place stress on the top board. The best solution will be on a case
by case basis. If you notice a gap of between .5mm and 1mm between the top
of the spacer and the bottom of the top board, then simply place a small
washer in the gap. This is the simplest way to correct the problem. The

other way is to just tighten the screws so that they are secure, but not placing stress on the top board. (Thanks to Vince KD7AI for catching this)

* PC and Mac serial hookup
Answers to questions regarding a problem about getting a computer to talk out the serial line to the dsp-93.
 -- Are you sure you have all the necessary wires in your serial cable. If I remember correctly, you may be using a Mac. The cable requires RTS,CTS and not all serial cables carry this. (Ron, W5RKN)
 -- check out the handshaking used by your terminal program. You should set it for NO handshaking whatsoever...this burns me from time to time when I switch terminal programs or operating systems. (Mark, KC4EBR)

January 11th, 1995 Update Section

* MAX692CPA Part
The first production run of DSP-93 were shipped with a MX692CPA, instead of the required MAX692ACPA. The 'A', turns out to be significant. The solution for using this chip (692CPA) on the DSP-93 is simple:

Ground pin 8 (VBAT). Then, the unit will work fine with either of the two MAXIM chips (692CPA or 692ACPA). You will find a hole next to pin 8 of U116. This pad is connected to pin 8 on the circuit side (bottom) of the PC Board. Solder a short jumper wire from this pad to pin 3 of U116 (GROUND). Now you can use either device (692CPA or 692ACPA). This fix has been tested with both types of devices and it works fine. NO CUTS ARE REQUIRED ON THE BOARD.

* The following has been added to the build doc.
Be sure to read the following paragraphs carefully.
You must configure your DSP-93 properly or you may cause your radio to go into a transmit mode after power up or reset. If your radio is placed in transmit, it may burn out a preamplifier or damage your radio. If you read and understand the following inThe RADIO IO ports must be configured to a determined radio port control state at power up by strapping certain lines on the DB25 "Interface Port" interfacing the TNC. The monitor code checks the logical state of four lines after a power up or reset. The logical state of these lines will establish the initial output condition of the lines which control your radio's push to talk line and the external frequency shifter. It is suggested that you configure these lines with jumpers to +5 or ground according to the requirements of your radio. Refer to your radio's manual for information about how these signals will affect the radio's operation. In other words, do you ground your radio's PTT input to key your radio or do you take it to plus five volts? After you have it wired, test it with your equipment to be sure things are working as you expect. Remember, with computers and so many things to connect properly it is easy to get something wrong and cause a problem so double check everything.

The jumpers to configure the four radio control ports can be placed on a 20 pin header. This header will then plug into the extra connector placed on the ribbon cable connecting the DB25 "Interface Port" and the 20 pin header on board two.

Refer to section "IO Port Configuration Setup" of your assembly manual, near the back (page 33 of First Printing), for more information.

January 10th, 1995 Update Section

* Good News! A source for 1.5amp transformers has been located and transformers should no longer be a problem. They will be shipped to everyone notifying the office that they require a replacement supply. Supplies are expected into the office on January 17th.

* Typo. page 15 col 1 para 6. Should be R217 not R127 and perhaps at end of line add U205 pin 14. (Ian, ZL1AOX)

* Page 15 col2 ... suggest that C214 be included in group below or maybe highlight it some way. I was caught out and placed a 0.1 instead of 1.0UF cap in position C214. (Ian, ZL1AOX)

* Page 20 col 2 re speaker wire. There is not a square PCB pad as mentioned

in 2nd from bottom paragraph. (Ian, ZL1AOX)
NOTE: The square pad was suppose to be the hole next to the edge of the board.

* Page 21 RESET button. Should mention that it is soldered onto board 1. There is also a reset position in the same area on Board 2. (Ian, ZL1AOX)

* When installing the interboard connectors JP201, JP202, JP203, and JP205 you need to be careful. Extra care is needed when handling the boards after they have been installed. (Jeff, ZL1BIV)

P.S. Congrats to Jeff, ZL1BIV and Ian, ZL1AOX for the first units finished and working.

January 2nd, 1995 Update Section

* Wall Transformer
If you got a 1 amp supply, you must contact the office in order to get the correct 1.5 supply. See messages on dsp-93 for all the details. E-mail gjones@tenet.edu, call (817) 383-0000, or fax (817) 566-2544. After informing the office, please ship the supply in small box back, so we can exchange it.

PLEASE DO NOT CUT THE POWER PLUG OFF THE END.
If you did, put a note in with the unit so that we don't ship it back that way :-)

* Schematics Changes: On page 3 of 3 Digital:Power Supply
C118 & C119 are drawn twice: C119 once as a by-pass caps 0.1 and again as a 4.7 uF filter cap. and C118 in the power supply filter and in the by-pass cap drawing.
Change C119 from a 4.7 uF to a 0.1. Remove the extra C119. Change the extra C118 to C123. (Bob de N5BRG)

* Schematics Changes: On page 3 of 3 Digital:Power Supply
C123 is not on the diagram. It's a by-pass for U116 and is 0.1 uF. Add this to your schematic. (Bob de N5BRG)

* Schematics Changes: On page 2 of 3 Digital reset and Clock:
C110 : The value is not given just the labeled CAP. The value of C110 is 0.1 uF. Correct your schematic. (Bob de N5BRG)

* Page 19
The LED flats are small and hard to see. It might be a good double check and to mention the SHORT lead (cathode) goes in the square hole. The bend is about where the marking crimp's are on the leads. (Bob Wininghamm KC5EJK)

LED leads are not always cut this way. We should mention this in case they are. Be sure to look at the flat of the package to double check. (Bob de N5BRG).

* Page 10/col 2
It has been suggested:
P100 has GIANT holes for the connections to it. Much larger than the terminals that go into it. It makes it difficult to find something to solder to. I twisted the terminal closest to the edge of the board a little so that a piece of leftover wire would go through it and one of the other terminals. I then stuck another wire through it to the other terminal. There are three, if that sounds confusing. These wires bridged the hole in the pc board, supported the jack as I soldered it and gave me additional soldering area. I then trimmed the excess wire. If you do that be sure not to leave the terminals jumpered. It looks like two of them are, but I suspect you can expect smoke if you jumper all three together. (Jim de K4GVO)

I have soldered a number of these connectors to boards by just placing the connector flat on the PC board and filling the three holes with solder. I used a 25W soldering iron. This method works. (Bob de N5BRG)

* R224 in parts and C207 on schematics
R224 was dropped in the production board, but was not removed from the parts list. This means you have an extra resistor for this part. It was removed from page 14 of the install. It is also shown on the schematics on page 1 of 5 along with a capacitor marked as C207. Both of these should be marked out in the schematic. They do not exist on the PC boards. The identifier C207 was used on the capacitor placed near U202 and it is connected to pins 1 and 2 of U202. This should be added to the schematic on page 3 of 5.

C207 is a 22 pF capacitor. (Bob de N5BRG)

* Page 17 (JP208 2 pin Male Header)
JP208 was left off the parts list and parts placement diagram. It is in the
install section. This is a two pin jumper located next to R215 on board 2.
If you are short a jumper and you did not install J100 then cut a pin off
this part and use it for J208. (Bob de N5BRG)

* You have a Mac and need to read the IBM disks.
I have a Macintosh and I had no problem using Apple File Exchange to read
the two computer disks into my computer. In addition, PC Exchange version
2.0.2 on system 7.5 works fine. (Bob KC5EJK)

I used DOSMounter to read the files onto my Mac. (Greg, WD5IVD)

* Flux removal
There has been a long discussion on the best ways to handle flux removal.
Refer to the dsp-93 mail list archives for the information.

December 30th, 1994 Update Section

* Be sure to check the bottom of the bags for parts that might be stuck.
The enclosure hardware was in it's own little plastic bag.

* Inter-board connectors
When installing, make sure that the 83B parts (the longer ones) are used on
board 2. Refer to the supplied sheet on the errata, which shows the
connectors in 1:1 size for comparison. The shorter ones on Board 1 (bottom)
will bet cut off, while the longer ones are used to connect it to board 2.
The difference in lengths between 63B and 83B is about a 1/4 inch. These
are almost impossible to remove when installed, so DOUBLE CHECK!
(** For International builders the component ref sheet is in the build doc **)

* Page 3/2nd col   (Jim de K4GVO)
R105 should be (red-red-brown-gold). It is correct on install page.
R211 should be (red-black-orange-gold). It is correct on install page.

* Page 7, Socket Install
It has been suggested:
That header J100 be installed before the U114 and U115 sockets are
installed, due to the tight fit. (Jim de K4GVO)
TAPR NOTE: This will be corrected in the next run of the board.

* Page 9 (C113 and C114)
It has been suggested:
If you are putting zig-zags in the leads of the 0.1 caps to make them fit
the hole spacing watch out for C113 and C114 as there are small land-holes
between and the solder might wick over if the cap leads are touching the
board at that spot. (Bob KC5EJK)
TAPR NOTE: The via location will be corrected in the next run of the board.

* Page 15/col 1
It has been suggested:
The power jumper that need to be added to the +5 of Pin 14 and Pin 1 of the
resistor strip it would have been better if I had put the jumper in and then
soldered the pins. I could have placed a small wire into the pad holes or
wrapped around the pins. (Bob KC5EJK)
TAPR NOTE: This will be corrected in the next run of the board.

* Page 15/16
My kits C207 and C212 the 22pF cap had markings of 22J not the (27) as shown
on page 15 and 16. (Bob KC5EJK)

* Page 17 JP207 and JP212
These are both shown as JP207 on the silkscreen. The parts placement is
correct. The correct JP207 is near U212. The other silkscreen JP207 near
IO202 is JP212
TAPR NOTE: This will be corrected in the next board production.

* Page 18 P203AC Jack
The directions say to solder in at position P100, it should be position
P203. Typo.

* Page 18/col 2 Crystal
It has been suggested:
Somehow reading the Crystal instructions misses telling people with a
crystal with short leads that they need to make three wires. Two for the

bottom leads and one for the can lead. Someone might mount the crystal upright. I hope when the instructions said flat it was telling me (on its side). (Bob KC5EJK)

TAPR NOTE: Mounting it on its side is the best solution, in case you want to mount a later board on top of the 2nd board (i.e. TNC-95, ethernet, etc). Some of the Xtals shipped had long leads and some didn't.

* Power Plug Install on line from transformer
I would suggest using some heat shrink when attaching the new plug to the power adapter cable. The stranded wire is large so you may want to remove a few strands to fit the center connector tab. You might also want to use tape or hear shrink for strain relief. (Bob KC5EJK)

Ron W5RKN

also:
rparsons@bga.com

64. Build Update - Second Run

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Thu, 21 Mar 1996 21:34:02 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b03ad77cf732b29@[204.181.160.13]>
Rendered body type: text/plain

DSP-93 Build Update
June '95 Production

Updated: 26 August 1995

We will issue updates to the build process as the situation warrants. The latest update will be posted to the dsp-93 mailing list and will be available on ftp.tapr.org in the directory /tapr/dsp93/updates.

Be sure to visit the TAPR Web pages at http://www.tapr.org/tapr/

You can get copies of all past messages distributed on the dsp-93@tapr.org list by sending mail to 'listserv@tapr.org', subject of 'list', message of 'index dsp-93'. This message will request a listing of all files in the dsp-93 mail archive. To then request a specific month, send mail again to 'listserv@tapr.org', subject of 'request', message of 'request dsp-93 filename', where filename is the name of the file in the dsp-93 area you want to request (i.e. nov.94). These archives are also available on the TAPR Web pages.

-=-=-=-=-=-=-= HERE'S YOUR CHANCE TO HELP THE GROUP =-=-=-=-=-=-=-

As you interface your DSP-93 to your radio, etc., how about writing up your experiences, procedures, problems, etc. Post your results and we'll collect them.

What additional would you like to see in the Operations Manual? Let me know and I'll sign you up for a section or two.

-=-

August 26th, 1995 Update Section

Documentation Updates
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* C212 and C213 are reversed in the Assembly Manual on pages 2 and 17. The schematic is correct and the silk screen on the PCB is correct.

C212 = 47 pF
C213 = 22 pF

If you are not having problems currently with the DSP-93 serial port, this may not affect you unless you use baud rates higher than 19200. If you are having problems, or if you are still building the kit, reverse C212 and

C213.

Be especially careful with the crystal and the Startech UART and static.

* Ignore the "Correction to Back Panel Silkscreen" paragraph on page 27 of the Assembly Manual. The June production Back Panels do not have icons for the Power and Speaker connectors. Thus they cannot be incorrect!

July 27th, 1995 Update Section

Interfacing the DSP-93 to your TNC

The diagram on the bottom of page 35 of the Assembly Manual should be considered as the desired end result of your connections between the DSP-93 and the TNC Modem Disconnect Header. While most TNC Modem Disconnect Headers are similar, they are not all exactly alike. There may be traces on the PCB shorting pins together and there may be slip-on shorting jumpers on the top of the Header. I hope no manufacturer put shorting traces on the top of the PCB under the header.

Be sure to shield the cable between the DSP-93 Interface Port connector (DB-25) and your TNC. Connect to Ground (pin 15) on the Modem Disconnect Header.

I will begin collecting information on various TNC Modem Disconnect Headers. If you are using a TNC which is not on the list below, please send me the relevant data.

MFJ-1270B (Thanks to Ron Parsons W5RKN)

The 1270B comes with slip-on shorting jumpers between 1-2, 11-12, 13-14, 17-18. There are traces on the PCB between 3-4, 5-6-10-9, and 19-20 (the latter trace needs to be cut).

Short pins 11-12 and 13-14 on the Modem Disconnect Header (MDH) connector.

Make a shielded cable with the following connections:

MDH	Signal	DB-25 (male)
1	_DCD_	1
5	_PTT_	3
15	GND	8
17	RXD	9
19	TXD	10

MFJ-1270C (Thanks to Mark L. Hammond KC4EBR)

The MFJ-1270C is the same as the 1270B except that pins 1 and 2 are shorted with a trace on the PCB rather than with a shorting jumper. Leaving this shorting trace appears to do no harm and makes the DCD light on the TNC active.

PacComm TNC-NB96 or TINY-2 (Thanks to Paul Evans, W4/G4BKI)

The traces between pins 1-2 and 17-18 on the PCB need to be cut to free up the TNC from the on-board modem.

To attach to the AUX MDH on the back of the TNC-NB96. You need to break open 1-2 and 17-18 on that header too! The board designer must have gone a little nuts that day and left the cross jumps in! Otherwise the wiring is identical to that on p35 of the DSP-93 Assembly Manual.

Make a screened (note that G4 call) cable with the following connections:

MDH	Signal	DB-25 (male)
1	_DCD_	1
5	_PTT_	3
15	GND	8
17	RXD	9
19	TXD	10

By the way, looking into the AUX connector on the TNC-NB96, the pin 1 is in the bottom left corner, so looking into the AUX connector, it looks the same as looking down on the J5 MDH in a "normal" TNC.

The TINY-2 does not have an AUX connector. J5 is the MDH (modem disconnect header) onto which the external modem is hooked. Pin 1 is identified by a square box on the silk screen side of the board and by a square solder pad on the solder side.

Documentation Updates

On Assembly Manual, page 22, Volume Control, in the 4th paragraph, change:
Connect the wire from the square pad (towards the front of the PCB next to the dot) of R234 to terminal 1 (square pad)
to:
Connect the wire from the square pad (towards the front of the PCB next to the dot) of R234 to terminal 1.

On Assembly Manual, page 23, Board 2 Initial Check, in the 6th paragraph, change:
You also need to inspect carefully the top of the board Now check the analog +5 volts by checking the voltage between ground and the square pad of C233.
to:
You also need to inspect carefully the top of the board Now check the analog +5 volts by checking the voltage between ground and the square pad of C227.

On Assembly Manual, page 30, first paragraph, change:
For easy triggering, an oscilloscope can be connected to J203 pin 10 to monitor the output voltage level.
to:
For easy triggering, an oscilloscope can be connected to JP203 pin 10 to monitor the output voltage level.

On schematic A/D Section [1 of 5], REV. 02/08/95, the designations for pins 4 and 8 of U209A are interchanged. Pin 8 is +5 V ALG while pin 4 is -5 V ALG.

July 14th, 1995 Update Section

Documentation Update

Ignore the item "Note to users of Icom Transceivers ..... 36" in the Table of Contents on page 1 of the Assembly Manual. This item is not relevant to this production build. The item was left over from a previous build.

SRAM chip type

The SRAM chips being sent out may be labeled HP93C9509 M628032-20PSI. These replace the SRAMs listed as 71256S20TP in the Assembly Manual.

RESET solder pads clarification

Solder one end of each wire in the two holes located next to (to the right of) the word RESET near the upper right corner of board one

---

June 30th, 1995 Update Section

Documentation Update

The June 1995 DSP-93 distribution ships with Version 2.17 of the EPROM. For Version 2.17 of the EPROMs, several documents on the distribution diskettes

have been updated and their content included in a new document "Programming Guide for the DSP-93". The documents MONITOR.DOC, MEM-93.DOC, and MONMEM.DOC are now obsolete. Also the comment in MONITOR.INC about the SIN/COS table is an anachronism and should be ignored for Monitor Version 2.17.

The new document "Programming Guide for the DSP-93" is available at ftp.tapr.org in the tapr/dsp93/manuals directory with the name ProgGuide.word. The file is in Microsoft Word format.

There are also several other documents currently in the same directory.

```
DSP93_Interface_Win_Man.pdf   The D93WE PSR article
DSP93_Assm_Man.pdf            The current Assembly Manual
DSP93_Ops_Manual.pdf          The new DSP-93 Operations Manual
```

pdf documents are in the Adobe portable document format. Freeware reader installers for this document format are available at:

See ftp://ftp.tapr.org/tapr/utils/ACROREAD.EXE for Windows.
See ftp://ftp.tapr.org/tapr/utils/Acrobat_Reader_installer.hqx for MacOS.

See ftp://ftp.adobe.com/pub/adobe/Acrobat/Windows/acroread.exe for PCs.
See ftp://ftp.adobe.com/pub/adobe/Acrobat/Macintosh/2.0.1/AcroRead.mac.sit or
ftp://ftp.adobe.com/pub/adobe/Acrobat/Macintosh/2.0r3/AcroRead.sea.bin
for MacOS depending on which version you want.

Monitor Version 2.17 Programs in EPROM

The programs in Monitor Version 2.17 have been updated from Version 2.16. The new program list follows. Where the name of the mnemonic differs from the .OBJ filename, the filename follows the mnemonic.

```
1-SCOPE                D93SCOPE.OBJ
2-SPECTRUMANALYZER     D93SPEC.OBJ
3-FUNCTIONGENERATOR    D93FUNCG.OBJ
4-CW_93D
5-HFU_93X
6-HF_93A
7-HF_93AE
8-MEMTEST
9-PKTP1
A-PKTP2
B-PSKP1                PSK93R1J.OBJ
C-PSKP2                PSK93R2J.OBJ
D-PSK_93T2
E-PSK_93P2
F-APT_93B
G-TESTANIN
H-TESTBUZZ
I-TESTLEDS
J-TESTPORT
K-TESTRAMP
L-FSKISIP1             FSK93K1.OBJ
M-FSKISIP2             FSK93K2.OBJ
N-FSK15P1              FSK93U1.OBJ
O-FSK18P1              FSK93U1B.OBJ
P-FSK15P2              FSK93U2.OBJ
Q-FSK18P2              FSK93U2B.OBJ
R-HF_93HT
S-HF_93HTE
T-HF_MODEM
```

Power Supply Balancing

After both boards have been completed and assembled together, and the "DSP-93 Final Check" on page 25 of the Assembly Manual has been completed, perform a quick check of the balance of the two power supplies. Both +5V supplies on the two boards contribute to the +5V digital power planes. If the two regulators (VR100 and VR201) have significantly different regulating voltages, one of the regulators will carry more than its share of the load. The voltage across the two 0.22 ohm resistors (R107 and R210) should be APPROXIMATELY equal (within a factor of two). Somewhere in the range of 50-90 mV is about right. Should the balance be way off (the voltage across one of them zero, say), please post a message on the dsp-93

mail list and we will work out a solution.

Testing DSP-93 RAM memory

When performing "Test 3: Memory Test" on page 29 of the Assembly Manual, you should test both banks of RAM memory. Both RAM banks can be tested by issuing the 'T' command in slow mode (i.e., after a reset) and again in fast mode (i.e., after a 'G' command). RAM U104-U107 is tested in slow mode and RAM U108-U111 is tested in fast mode.

Error in Test 8 instructions

When performing "Test 8: TESTANIN" on page 32 of the Assembly Manual using DOS, enter the command 'DSPLOAD TESTANIN' instead of 'DSPLOAD TESTANIN.OBJ'.

Error in Test 9 instructions

When performing "Test 9: TESTPORT" on page 32 of the Assembly Manual using DOS, enter the command 'DSPLOAD TESTPORT' instead of 'DSPLOAD TESTPORT.OBJ'.

Correction to TNC Modem Disconnect Header Signal

On page 35 of the Assembly Manual, the signal on pin 6 of TNC Modem Disconnect Header should be TRANSMITTER KEY INPUT rather than NO CONNECTION.

Ron W5RKN

also:
rparsons@bga.com

65. Re: [DSP-93:2073] Re: Reset chip

From: Greg Jones <wd5ivd@tapr.org>
Date: Thu, 21 Mar 1996 22:17:55 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199603220417.WAA10568@tapr.org>
Rendered body type: text/plain

You are probably correect Bob. I forgot about that issue. I told IOan what we could replace the chip for, but he probably does not need it replaced.

See the latest build updates posted by Ron.

Greg

> At 04:33 AM 3/20/96 -0600, you wrote:
>
> Some early kits were shipped with a MAX692 and not a MAX692A. Pin 8 must be
> grounded or the MAX692 will not work. Try grounding pin 8 of U116 and see if
> this does not solve your problem.
>
> >Although my kit was from the first batch it took me quite a while to get
> >round to assembling it. Having finally found the time it looks like I have a
> >dead MAX692 as pin 7 does not change state when pressing reset button. By
> >dropping the reset line manually I can get the dsp to reset.

> >
> >My problem is finding a source for the MAX692 chip, my normal supplier of
> >hard to find parts has failed to turn up anything. Any info would be
> >appreciated.
> >Thanks
> >
> >Ian, zl4til
> >---
> >Ian Drage, idrage@es.co.nz
> > Invercargill, New Zealand
> >---
> >
> >
> >
>
> Bob Stricklin, N5BRG
> bstrick@dallas.net AKA: bstrick@plano.net   bstrick@tenet.edu
> Dallas, Texas
>
>

66. RE: [DSP-93:2070] help

From: j.d.melton.slh0631@oasis.icl.co.uk
Date: Fri, 22 Mar 1996 07:55:28 GMT
To: dsp-93@tapr.org
Message-ID: <199603220755.14225.0@getafix.oasis.icl.co.uk>
Rendered body type: text/plain

Mike, to log onto ftp.tapr.org you login as user anonymous and
give your email address as the password. If you need any more
help you can call me at home 01342-718166 or in the office
01753-604474.
Regards,
John Melton g0orx/n6lyt (Copthorne, West Sussex)

67. Compuserve / Mosaic help

From: Mike Kerry <100577.1452@compuserve.com>
Date: 22 Mar 96 18:27:58 EST
To: "(unknown)" <DSP-93@tapr.org>
Message-ID: <960322232757_100577.1452_GHW87-2@CompuServe.COM>
Rendered body type: text/plain

Tnx for replies about login to ftp.tapr.org
To be more specific, can anyone spell out how to do this using
Compuserve Information Manager or Mosaic?

Also, can I retrieve files or directory lists from tapr by mail requests?

Tnx
Mike, G4BMK

68. Re: FTP w/ netscape & mosaic

From: Doug Rorem <rorem@cherokee.eecs.uic.edu>
Date: Fri, 22 Mar 1996 19:43:08 -0600
To: dsp-93@tapr.org
Message-ID: <rorem-9602230143.AA000316349@cherokee.eecs.uic.edu>
Rendered body type: text/plain

>Tnx for replies about login to ftp.tapr.org
>To be more specific, can anyone spell out how to do this using
>Compuserve Information Manager or Mosaic?
>
>Tnx
>Mike, G4BMK

Mike,

With netscape & I assume mosaic, you can retrieve things via FTP
by using the following URL:

ftp://ftp.tapr.org

This presents you with a 'graphical' front end to the FTP site. You
can click on items of interest and retrieve them much like you navigate
around the WWW with http addresses.

--
Doug Rorem

University of Illinois at Chicago (312)-996-5439 [voice]
EECS Department RM 1120 (312)-413-1065 [fax]
851 S. Morgan Street (708)-996-2226 [pager]
Chicago, IL 60607-7053 rorem@uic.edu

69. Re: [DSP-93:2082] Compuserve / Mosaic help

From: Bob Stricklin <bstrick@dallas.net>
Date: Fri, 22 Mar 1996 21:51:11 -0600
To: dsp-93@tapr.org
Message-ID: <2.2.32.19960323035111.002e31c8@plano.net>
Rendered body type: text/plain

I think it would be a good idea for you to give a little more info on what
you have to work with.

Do you have WinCim? If yes, what version? The most current version supports
windows sockets or winsock.

What version of windows are you using? Win95. Windows 3.1 etc ....

You mentioned Mosaic, do you use Mosaic through an internet provider or do
you have an internet provider?

At 05:53 PM 3/22/96 -0600, you wrote:
>Tnx for replies about login to ftp.tapr.org
>To be more specific, can anyone spell out how to do this using
>Compuserve Information Manager or Mosaic?
>
>Also, can I retrieve files or directory lists from tapr by mail requests?

You may be able to do this if you had a unix system and knew how to use
UUCP. It does not sound like this is the case though so you should figure no
mail request.

>
>Tnx
>Mike, G4BMK
>
>

Bob Stricklin, N5BRG
bstrick@dallas.net AKA: bstrick@plano.net bstrick@tenet.edu
Dallas, Texas

70. Re: [DSP-93:2082] Compuserve / Mosaic help

From: Fernando Mederos <fmederos@alfa.adinet.com.uy>
Date: Sat, 23 Mar 1996 01:51:04 -0800
To: dsp-93@tapr.org
Message-ID: <199603230951.BAA17020@adinet.com.uy>
Rendered body type: text/plain

>Tnx for replies about login to ftp.tapr.org
>To be more specific, can anyone spell out how to do this using
>Compuserve Information Manager or Mosaic?

        I don't know those platforms, but i guess that specifying the
address 'ftp.tapr.org' to Mosaic should let you in TAPR's FTP directory.

>Also, can I retrieve files or directory lists from tapr by mail requests?

        Yes!, it is certainly not the fastest way to get the information but
it works. Send a message like the following to 'ftpmail@census.gov':

open ftp.tapr.com
cd /tapr
dir
mode binary
get somefile.txt
quit

        The 'cd' command works just like in MS-DOS. 'mode binary' is
required to get non-text files. The 'get' command can be used with any kind
of file. The results of the 'get' and the 'dir' will be posted to you
automatically.
        Your message will be processed by a machine - don't include comments.

        Regards,
                Fernando

71. [HFSIG:984] Updated HF Channel Simulator (fwd)

From: Greg Jones <wd5ivd@tapr.org>
Date: Sat, 23 Mar 1996 20:05:45 -0600 (CST)
To: dsp-93@tapr.org (DSP-93 Build)
Message-ID: <199603240205.UAA10807@tapr.org>
Rendered body type: text/plain

Forwarded message:
>From hfsig@tapr.org Sat Mar 23 11:22:50 1996
Date: Sat, 23 Mar 1996 10:45:17 -0600 (CST)
Message-Id: <9603231642.AA07325@ucs.orst.edu>
Reply-To: hfsig@tapr.org
Originator: hfsig@tapr.org
Sender: hfsig@tapr.org
Precedence: bulk
From: forrerj@ucs.orst.edu (Johan Forrer)
To: hfsig@tapr.org
Subject: [HFSIG:984] Updated HF Channel Simulator
X-Listprocessor-Version: 6.0 -- ListProcessor by Anastasios Kotsikonas
X-Comment: Tucson Amateur Packet Radio HF Special Interest Group
Content-Type: text/plain; charset="us-ascii"
X-Mailer: Windows Eudora Version 1.4.4

Hi,

For those interested in the DSP-93 version of the HF channel simulator,
please check out the latest upload of an experimental HF channel simulator
test.

With Alexander's (DL8AAU) help, I managed to fix a few errors, and also
included some new test conditions. The examples now reflect the CCIR
specifications more accurately and now include:

Selective fading: Good, moderate, poor, flutter fading,
two kinds of flat fading: Good and severe.

The updated package is available for downloading from:
ftp.tapr.org/tapr/SIG/HFSIG/upload/simtest1.zip

Trust you find it useful.

73's

--Johan Forrer, KC7WW

72. Re: [DSP-93:2082] Compuserve / Mosaic help

From: mcdermot@rdxsunhost.aud.alcatel.com (Tom Mcdermott)
Date: Mon, 25 Mar 96 07:46:20 CST
To: dsp-93@tapr.org
Message-ID: <9603251346.AA01599@eagle.aud.alcatel.com>
Rendered body type: text/plain

> From dsp-93@tapr.org Fri Mar 22 18:22:53 1996
> Reply-To: dsp-93@tapr.org

> Tnx for replies about login to ftp.tapr.org
> To be more specific, can anyone spell out how to do this using
> Compuserve Information Manager or Mosaic?
>
> Also, can I retrieve files or directory lists from tapr by mail requests?
>
> Tnx
> Mike, G4BMK
>
>

        Mike: from CompuServe you can GO FTP which will give you
an ftp window to a host. Also, you can GO TELNET to get a
telnet window to a host. They both work quite well.

                                                    - Tom

```
------------------------------------------------+-----------------------------
 Tom McDermott                                  | "All opinions expressed
 Alcatel Network Systems, Inc.                  | are my own, and do not
 mcdermot@aud.alcatel.com                       | represent those of Alcatel
   [ ICC'96 Technical Program Secretary ]       | Network Systems, Inc."
   [   June 23-27, 1996, Dallas, Tx.    ]       |
```

```
-----------------------------------------------+-----------------------------
```

73. TEST ONLY! DO NOT READ!

```
From: Fermax.esp@vlc.servicom.es
Date: Fri, 29 Mar 1996 13:57:07 +0100
To: dsp-93@tapr.org
Message-ID: <199603291256.NAA16039@ns.mad.servicom.es>
Rendered body type: text/plain
```

This is a TEST!. Sorry for filling your HD...

Regards & 73's JOSE - EB5AGV/EC5AAU

74. DSP Virtual U.

```
From: "Robert L. Smith" <bobsmith@i2020.net>
Date: Sun, 31 Mar 1996 08:11:12 -0500
To: dsp-93@tapr.org
Message-ID: <9603311332.AC25110@mail>
Rendered body type: text/plain
```

Hello to other DSP knowledge phreques

A few weeks ago there was a thead discussing creation of a 'Virtual University' for learning DSP. That was followed with some discussion of availability of video taped workshops. I, for one, doubt that enough learing could be packed into a reasonable quanity of video tapes to deal thoroughly with this subject.

I would like to toss out a idea for discussion:

One of the participants in the thread mentioned the book, "Digital Signal Processing A laboratory approach using PC-DSP". I acquired a copy and have found it to be an extremely effective learning tool. The book is a real sleeper.
It comes with a copy of of the student version of PC-DSP on floppy. PC-DSP is an interactive, PC based tool which can generate and analyze signals in the digital domain. The book contains 140 exercises tailored to PC-DSP and takes you
step-by-step from basic concepts through such topics as Fourier transforms and FIR/IIR filter design. Each topic is follpowed by a series of exercises which use PC-DSP to drive the points home. (an essential step in the case of my thick skull). The book with floppy at $42.00 is an absolute bargin of knowledge.

My proposal is that we form a virtual university based on this book. The essential
elements of which would be:

1. We set up an email news group as the 'laboratory/class room'.

2. Each 'student' obtain a copy of the book and start working the exercises - the results of which would be pasted to email to be shared by the class.

3. We need a (or perhaps a series of) volunteer 'tutor(s)' (with an advanced understanding of the topic) to cirtique the results and post the the correct solution to each exercise.

Any thoughts????

73 de Bob, wa4ypv bobsmith@i2020.net

75. Re: [DSP-93:2089] DSP Virtual U.

```
From: Greg Jones <wd5ivd@tapr.org>
Date: Sun, 31 Mar 1996 08:18:55 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199603311418.IAA10124@tapr.org>
Rendered body type: text/plain
```

Hello.

Since the thread came up -- I have been working on general issues, but have yet to find a facilitator.

The facilitator is the key to the effort. All the theory on e-mail exchanges of this method support this (one aspect of my PhD dissertation - which is focusing on discourse analysis of e-mail in individual mentoring situations).

Anyway -- if we can find a facilitator that could pull it off and has the time -- TAPR would be interested in doing this in a heart beat. I hjave talked to the ARRL about getting access to their video that Jon Bloom did and still have more discussion ahead...several questions they have asked I havn't had a chance to reply to yet. But I agree that one tape is not going to really solve the situation totoally. The book you have found sounds like a really good source book for a course. I'll have to see if anyone at UT, Austin is using it.

There are some additional items to consider as well - as Johan KC7WW and myself have been chating about.

1. It will be hard to allow an unlimited set of DSP platforms to be involved, since a lot of the beginning questions will deal with platform speific issues. Also, platform issues determine a lot of the ways you implement things. There are really three topics under DSP code development -- hardware issues, DSP theory, and code development issues.

2. You want to limit the number of people in each session to some amount one facilitator can handle. This depends on the facilitaotr. I have seen some electronic session have hundred of folks and break down becuase the facilitator can not handle the questions each week. DSP topics are going to be complex in nature and this thus require more time and effort to respond to. A multiple facilitiaor appraoch might work the best.

3. The course would be best done as a very limited things the first thime throught, say 5 people. This would give the facilitiaor the chance to develop the materials further and see what is missing. Doing it ona large scale the first time -- will probably present some larger issues and has a good possibility of failing the first time. As my major prof always say on research projects like this -- start small, it is worth doing badly the first time.

There are a few smaller issues involved, but I am not felling all that well this morning -- so going to go back to bed and take my medicine.

If anyone knows of afacilitator(s) then let me know and we can start talking. TAPR.ORG has plenty of room for another listserv group to do this....and the educational aspects fit in very well with what TAPR wants to achieve. That of finding someway to increase the education on DSP topics.

Cheers - Greg

> Hello to other DSP knowledge phreques
>
> A few weeks ago there was a thead discussing creation of a 'Virtual University'
> for learning DSP. That was followed with some discussion of availability of
> video taped workshops. I, for one, doubt that enough learing could be packed
> into a reasonable quanity of video tapes to deal thoroughly with this subject.
>
> I would like to toss out a idea for discussion:
>
> One of the participants in the thread mentioned the book, "Digital Signal
> Processing A laboratory approach using PC-DSP". I acquired a copy and have
> found it to be an extremely effective learning tool. The book is a real
> sleeper.
> It comes with a copy of of the student version of PC-DSP on floppy. PC-DSP is
> an interactive, PC based tool which can generate and analyze signals in the
> digital domain. The book contains 140 exercises tailored to PC-DSP and
> takes you
> step-by-step from basic concepts through such topics as Fourier transforms and
> FIR/IIR filter design. Each topic is follpowed by a series of exercises which
> use PC-DSP to drive the points home. (an essential step in the case of my
> thick skull). The book with floppy at $42.00 is an absolute bargin of
> knowledge.
>
> My proposal is that we form a virtual university based on this book. The
> essential
> elements of which would be:
>
> 1. We set up an email news group as the 'laboratory/class room'.
>
> 2. Each 'student' obtain a copy of the book and start working the
> exercises - the results of which would be pasted to email to be shared
> by the class.
>

> 3. We need a (or perhaps a series of) volunteer 'tutor(s)' (with an
> advanced understanding of the topic) to cirtique the results and post
> the the correct solution to each exercise.
>
>
> Any thoughts????
>
>   73 de Bob, wa4ypv   bobsmith@i2020.net
>
>

76. Re: [DSP-93:2089] DSP Virtual U.

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sun, 31 Mar 1996 08:28:28 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b00ad844643bfbf@[204.251.33.13]>
Rendered body type: text/plain

>Hello to other DSP knowledge phreques
>
...
>One of the participants in the thread mentioned the book, "Digital Signal
>Processing A laboratory approach using PC-DSP". I acquired a copy and have
>found it to be an extremely effective learning tool. The book is a real
>sleeper.
>It comes with a copy of of the student version of PC-DSP on floppy. PC-DSP is
>an interactive, PC based tool which can generate and analyze signals in the
>digital domain. The book contains 140 exercises tailored to PC-DSP and
...
>Any thoughts????
>
> 73 de Bob, wa4ypv   bobsmith@i2020.net

I obtained a copy of this book and the Windows version of the program about
a year ago. Good learning tool with good exercises.

It is a good way to learn the basics of DSP. Be prepared for some math
re-learning if you have not exercised that part of your brain recently.

Ron W5RKN

also:
rparsons@bga.com

77. Re: [DSP-93:2089] DSP Virtual U.

From: "Kenneth R. Goodwin, Jr." <kgoodwin@draper.com>
Date: Sun, 31 Mar 1996 09:45:58 -0600
To: dsp-93@tapr.org
Message-ID: <2.2.32.19960331154558.0069734c@mickey-csdl.jsc.nasa.gov>
Rendered body type: text/plain

Sounds like a good idea. I find the soft-cover text (Digital Signal
Processing - A Laboratory Approach) to be an excellent starting point and I
have enjoyed the results to date. However ....

Does anybody have a means to print the plots generated by the PC-DSP (DOS
based program? The generated tabular data is saved in a file but there is
no "menu" means of printing the graphical results. I find that not being
able to print (save) the graphical results severly limits my ability to
document my solutions. I suspect a stand-alone data plotting program might
be a solution, but I have no experience with any of these except possibily
Mathcad.

Ron W5RKN mentions a Windows based version of the program being available.
Can someone provide a source for this version?

At 07:31 AM 3/31/96 -0600, you wrote:
>Hello to other DSP knowledge phreques
>
>A few weeks ago there was a thead discussing creation of a 'Virtual University'
>for learning DSP. That was followed with some discussion of availability of
>video taped workshops. I, for one, doubt that enough learing could be packed
>into a reasonable quanity of video tapes to deal thoroughly with this subject.
>
>I would like to toss out a idea for discussion:
>
>One of the participants in the thread mentioned the book, "Digital Signal

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>found it to be an extremely effective learning tool. The book is a real
>sleeper.
>It comes with a copy of of the student version of PC-DSP on floppy. PC-DSP is
>an interactive, PC based tool which can generate and analyze signals in the
>digital domain. The book contains 140 exercises tailored to PC-DSP and
>takes you
>step-by-step from basic concepts through such topics as Fourier transforms and
>FIR/IIR filter design. Each topic is follpowed by a series of exercises which
>use PC-DSP to drive the points home. (an essential step in the case of my
>thick skull). The book with floppy at $42.00 is an absolute bargin of
>knowledge.
>
>My proposal is that we form a virtual university based on this book. The
>essential
>elements of which would be:
>
>1. We set up an email news group as the 'laboratory/class room'.
>
>2. Each 'student' obtain a copy of the book and start working the
>exercises - the results of which would be pasted to email to be shared
>by the class.
>
>3. We need a (or perhaps a series of) volunteer 'tutor(s)' (with an
>advanced understanding of the topic) to cirtique the results and post
>the the correct solution to each exercise.
>
>
>Any thoughts????
>
> 73 de Bob, wa4ypv   bobsmith@i2020.net

78. Re: [DSP-93:2092] Re: DSP Virtual U.

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sun, 31 Mar 1996 11:25:18 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b01ad8470489f19@[204.251.33.2]>
Rendered body type: text/plain

>Sounds like a good idea. I find the soft-cover text (Digital Signal
>Processing - A Laboratory Approach) to be an excellent starting point and I
>have enjoyed the results to date. However .....
>
>Does anybody have a means to print the plots generated by the PC-DSP (DOS
>based program? The generated tabular data is saved in a file but there is
>no "menu" means of printing the graphical results. I find that not being
>able to print (save) the graphical results severly limits my ability to
>document my solutions. I suspect a stand-alone data plotting program might
>be a solution, but I have no experience with any of these except possibily
>Mathcad.
>
>Ron W5RKN mentions a Windows based version of the program being available.
>Can someone provide a source for this version?
>

It's mentioned in the docs on the diskette with the book. Don't have the
address handy.

Ron W5RKN

also:
rparsons@bga.com

79. RE: [DSP-93:2091] Re: DSP Virtual U.

From: "Bob Smith" <bsmith@msn.com>
Date: Sun, 31 Mar 96 13:08:25 UT
To: dsp-93@tapr.org
Message-ID: <UPMAIL01.19960331182025018 7@msn.com>
Rendered body type: text/plain

Where can you get the Windows version - got the same book too!

From: dsp-93@tapr.org on behalf of Ronald G. Parsons
Sent: Sunday, March 31, 1996 3:35 PM
To: dsp-93@tapr.org
Subject: [DSP-93:2091] Re: DSP Virtual U.

>Hello to other DSP knowledge phreques
>
..
>One of the participants in the thread mentioned the book, "Digital Signal
>Processing A laboratory approach using PC-DSP". I acquired a copy and have
>found it to be an extremely effective learning tool. The book is a real
>sleeper.
>It comes with a copy of of the student version of PC-DSP on floppy. PC-DSP
is
>an interactive, PC based tool which can generate and analyze signals in the
>digital domain. The book contains 140 exercises tailored to PC-DSP and
..
>Any thoughts????
>
> 73 de Bob, wa4ypv   bobsmith@i2020.net

I obtained a copy of this book and the Windows version of the program about
a year ago. Good learning tool with good exercises.

It is a good way to learn the basics of DSP. Be prepared for some math
re-learning if you have not exercised that part of your brain recently.

Ron W5RKN

also:
rparsons@bga.com

Bob Smith
Desktop and Online Services Strategy Group
mailto:rsmith@internetmci.com
http://www2.fyionline.com/~bsmith
Tel. 770-668-5231

80. Re: [DSP-93:2093] Re: DSP Virtual U.

From: "Kenneth R. Goodwin" <kgoodwin@draper.com>
Date: Sun, 31 Mar 1996 13:36:06 -0600
To: dsp-93@tapr.org
Message-ID: <2.2.32.19960331193606.006b0bfc@mickey-csdl.jsc.nasa.gov>
Rendered body type: text/plain

I went back into the .txt files supplied with PC-DSP and found the answer to
the question regarding PC-DSP. The Professional Edition has a graphical
plot printer capability. I now remember that the price stopped me dead in
my tracks when I first looked into this. Doesn't mean "we" can't ask DSP
Solutions for the current status and price.

PC-DSP FOR WINDOWS

  Has the same features as in the PC-DSP professional edition, except it
  works within the Microsoft Windows environment (version 3.1 or higher).
  Tightly integrates with PC-SIM for Windows, but can be used without it
  as well. Available April 1994.

PRODUCT   SITE LICENSE PRICE

PC-DSP Professional Edition $ 500.00

PC-DSP for Windows $ 500.00
Available April 1994

DSP Solutions   e-mail: pcdsp@minuet.siue.edu
P.O.Box 341   DspSol@aol.com
Glen Carbon, IL 62034

>>Does anybody have a means to print the plots generated by the PC-DSP (DOS
>>based program?
>>
>>Ron W5RKN mentions a Windows based version of the program being available.
>>Can someone provide a source for this version?
>>

81. Re: [DSP-93:2095] Re: DSP Virtual U.

From: chbrain@dircon.co.uk (Charles Brain)
Date: Sun, 31 Mar 1996 21:18:54 +0000
To: dsp-93@tapr.org
Message-ID: <199603312025.AA05631@felix.dircon.co.uk>
Rendered body type: text/plain

```
>PRODUCT                            SITE LICENSE PRICE
>
>PC-DSP Professional Edition                 $ 500.00
>
>PC-DSP for Windows                          $ 500.00
>Available April 1994
>
>
Thought you might be interested in some email I got from them
>
---------------------------------------- Snip
------------------------------------------------------
Date: Thu, 3 Aug 1995 11:14:24 -0400
From: DspSol@aol.com
To: chbrain@dircon.co.uk
Subject: Re: PC-DSP Professional

Dear Mr. Brain

Thank you for your interest in DSP Solutions products.  We do ship
overseas. Our international shipping charge is $20 for air-mail. We
ship the disks and printed user's manuals. The DOS bundle is $159,
and the Windows bundle is $199.  The Windows bundle has just been
upgraded to also include 32-bit (Win32s) versions of PC-DSP and
PC-SIM (both 16-bit and 32-bit versions are included).

You can order via e-mail with Visa or MasterCard. Please include the
card number and the expiration date. Also, please verify the amount
to be charged, $159+$20 for DOS bundle, $199+$20 for Windows
bundle.

Regards,
DSP Solutions

--------------------------------------------------------------------------------
----------------------------

And some questions I asked

-------------------------------------- Snip
------------------------------------------------------------
From: DspSol@aol.com
Date: Tue, 6 Feb 1996 17:47:48 -0500
To: chbrain@dircon.co.uk
Subject: Re: PC-DSP Question

> 1) Can you tell me the format of SEQ files so that I may read and
> write them in C.

We can do better than that. If you check the directory
     PCDSPW\SOURCE\C-LANG
it should contain a file named 'FILEOP.C' that has the functions for
reading and writing 'SEQ' files. This file requires the use of some
routines in 'BINIO.C' that is also in the same directory.

> 2) Can you give me the format of Spec Files used in the macro language
> and the name and format of the error files that external programs can
> create?

The spec files do not have a fixed format, but they depend on the target
application to be executed. That is to say, you can write any information
into a spec file as long as the child process reads it back in the same
way it was written.  Error files are straight text files.

> 3) Are there any plans for a new release of either pcdspw or pcsim ?

Yes. We have developers' editions of PC-DSP and PC-SIM in progress. PC-SIM
developers' edition will be available in early March, and PC-DSP developers'
edition will follow soon after that.  With PC-SIM, one will be able to define

one's own blocks by writing 32-bit DLL's. These will behave in exactly the
same way as the built-in components that PC-SIM has. On the PC-DSP side,
```

there are plans to include OLE server capabilities as well as a new
macro engine based on the TCL language.

Please check our WEB site at
     http://www.dspsolutions.com
for up-to-date information.

DSP Solutions

Regards Charles G4GUO

82. Re: [DSP-93:2095] Re: DSP Virtual U.

From: Tim Baggett <tim@NMSU.Edu>
Date: Sun, 31 Mar 1996 14:35:20 -0700 (MST)
To: dsp-93@tapr.org
Message-ID: <Pine.SUN.3.91.960331142902.24269A-100000@wilma>
Rendered body type: text/plain

>
> PRODUCT   SITE LICENSE PRICE
>
> PC-DSP Professional Edition $ 500.00
>
> PC-DSP for Windows $ 500.00
> Available April 1994

Wow, $500 bucks for a site license sounds pretty good for commercial
grade stuff compared to other prices I've seen ;-) Pretty expensive for
personal use though!

I can't remember who was wanting to capability to print the plots this
software creates. I believe you said it will save the data points to a file.

I don't know about MathCad (but I can ask the other grad students - I
don't use MatchCad myself). If anyone has access to Mathworks Matlab, the
data file can easily be imported into Matlab as a matrix and operations
provided there.The data file should be in ascii format.

I have also accomplished the same thing with Quattro Pro. I bet you can
import ascii data files into most any spreadsheet for plotting, and
further analysis.

73
Tim, aa5df
New Mexico State University, Las Cruces, NM
Internet: tim@nmsu.edu
AMPRnet: aa5df@armstrong.ampr.org

83. [APRSSIG:8047] Windows version PC-DSP

From: kc5ejk@onramp.net (Robert Winingham)
Date: Sun, 31 Mar 1996 15:50:40 -0600
To: dsp-93@tapr.org
Message-ID: <v02130501ad84ae727353@[199.1.11.127]>
Rendered body type: text/plain

>Date: Sun, 31 Mar 1996 11:50:13 -0600 (CST)
>Reply-To: aprssig@tapr.org
>Originator: aprssig@tapr.org
>Sender: aprssig@tapr.org
>Precedence: bulk
>From: "James R. Kauten, M.D." <kauten@mindspring.com>
>To: aprssig@tapr.org
>Subject: [APRSSIG:8047] Windows version PC-DSP
>X-Comment: Tucson Amateur Packet Radio APRS Special Interest Group
>
>--=====================_828322348==_
>Content-Type: text/plain; charset="us-ascii"
>
>Enclosed is the order form for Windows version of PC-DSP. The mailing
>address, etc. is:
>
>DSP Solutions   e-mail: pcdsp@minuet.siue.edu
>P.O.Box 341   DspSol@aol.com
>Glen Carbon, IL 62034

```
>
>I like the DOS version which works well with Win95, but may give the Windows
>version a try.
>
>73, Jim Kauten, MD, KO4RQ
>
>--====================_828322348==_
>Content-Type: text/plain; charset="us-ascii"
>Content-Disposition: attachment; filename="ORDER.TXT"
>
>                           ORDER FORM
>
>DSP Solutions                                e-mail: pcdsp@minuet.siue.edu
>P.O.Box 341                                          DspSol@aol.com
>Glen Carbon, IL 62034
>_____________________________________________________________________________
>
>PRODUCT                  QUANTITY        UNIT PRICE      AMOUNT
>
>PC-DSP Professional      _______         $ 99.00         $_______
>Edition
>
>PC-DSP Professional      _______         $ 59.00         $_______    (*)
>Editon (w/ student ID)
>
>PC-DSP for Windows       _______         $ 99.00         $_______
>(Available April 1994)
>
>PC-SIM for DOS           _______         $ 99.00         $_______
>
>PC-SIM for DOS           _______         $ 59.00         $_______    (*)
>(w/ student ID)
>
>PC-SIM for Windows       _______         $129.00         $_______
>(Available April 1994)
>
>Bundle-1                 _______         $159.00         $_______
>PC-DSP Prof. Ed. &
>PC_SIM for DOS
>
>Bundle-2                 _______         $189.00         $_______
>PC-DSP for Windows &
>PC_SIM for Windows
>(Available April 1994)
>                                            Subtotal  $ _______
>
>          Illinois residents must add 6.25 % sales tax  $ _______
>
>Disk format    3.5"   5.25"                 Shipping  $   5.00
>(circle one)
>                                              TOTAL  $ _______    (**)
>
> (*) Please include a photocopy of your student ID.
>(**) Personal checks, Visa, MasterCard.
>     Purchase orders accepted from academic institutions.
>_____________________________________________________________________________
>
>   Name: _____________________________  Company: _____________________________
>
>Address: ____________________________________________________________________
>
>   City: ________________________________  State: _________  Zip : ________
>
>_____________________________________________________________________________
>
>CREDIT CARD INFORMATION               Circle one:    Visa   MasterCard
>
>   Name on card: ____________________________  Account Number: ____________________
>
>Expiration date: _____________                Signature: ____________________
>
>--====================_828322348==_
>Content-Type: text/plain; charset="us-ascii"
>
>======================================================
>James R. Kauten, M.D.,  KO4RQ
>======================================================
>Phone:      (404) 355-9537 (Fax)            (404) 355-9515 (Daytime)
>Address:  James R. Kauten, M.D.,  95 Collier Road,  Suite 2055
```

```
>                                              Atlanta, GA,  30305-1955
>=====================================================
>Atlanta,  Home of the 1996 Olympics!!!
>=====================================================
>
>--====================_828322348==_--

Bob - Dallas,TX ---  kc5ejk@onramp.net  or  kc5ejk@amsat.org  ---
```

April 1996

Original source file: dsp.9604
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9604

1. SSB93P1.OBJ => new DSP-93 code!

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Mon, 01 Apr 1996 13:12:42 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19960401131242.00672308@camel.campbell.edu>
Rendered body type: text/plain

```
Hi Gang,

Well, Frank has done it again!  At the end of the message is the actual .OBJ
file--just copy it to a file and run.  Thanks again, Frank!
====================================

April 1, 1996

Are you a victim of a restrictive antenna covenant?
Stuck on 2 meter FM? Do you long for the time when
you can have your 4 element 40 meter beam back in
the air, creating its own aurora borealis?

Well, until your team of lawyers make peace with the
neighbors, the DSP-93 development team is pleased to
offer the next best thing, an FM AUDIO TO SSB AUDIO
CONVERTER! With this powerful piece of SW you will
AMAZE your friends, SCARE the cat, and bring a new
AMBIANCE to your dull, tired, 'ol 2-meter repeater!

Operation could not be simpler. Just load SSB93P1.OBJ
the normal way, plug in your headphones to the DSP-93
audio jack, pump that yucky old repeater audio
into radio port 1, and, by simply using the "L" and "H"
keys on your PC through your favorite terminal program,
RESTORE the excitment that only SSB audio can bring
to the reception of ham radio transmissions!

And yes, using the "Z" key, you can go back to dull old
audio instantly, so you know what you are missing!

And when its time to say 73s, the "R" key takes you home.

Special thanks to W5RKN, who conducted the secret testing
of this code so that YOU, once again, can experience
the THRILL that only SSB reception can provide.

73 Frank WB5IPM :-)

 License and Disclaimer

 A no cost, non-exclusive license to use the enclosed software is granted
 to all users of the TAPR/AMSAT DSP-93 DSP computer, with the restriction
 that it be used only for non-commercial amateur radio applications. ALL
 other uses are prohibited under this license. Copyright 1991, 1992, 1993,
 1994, 1995, and 1996, Frank H. Perkins, Jr., WB5IPM. All rights reserved.

 This software is EXPERIMENTAL. It is offered AS IS, without Warranty or
 Guarantee of any kind. NO representation is made that this software is
 suitable for any purpose, or that its operation is reliable. Use this software
 strictly at your own risk. The author, AMSAT and TAPR accept no liability
 for any loss or injury arising directly or indirectly from its use.

 Never use this software under circumstances where its failure to operate
 or its failure to operate as expected, or the failure of the attendant
 hardware could create a dangerous situation, cause loss of data, or could
 cause damage to your amateur radio equipment, computer equipment, or
 any other equipment or property.

 Please contact Greg Jones at TAPR or the author for information on
 commercial licenses of this software.

 Frank H. Perkins, Jr.

----------------------------------------SSB93P1.OBJ
```

```
:18200000FF801008FF80105DFF801063FF801008CE01C808CE07CE0377
:18201800CE08CE04D00180256002E702FE80111ED00100656002E70219
:18203000FE80111ED00140256002E702FE80111EC800CE37CE20D00131
:1820480000206004CA006061CE00CE1FD00100036061CE1FD00102273A
:182060006061CE1FD00100036061CE1FD00140826061CE1FD001000323
:182078006061CE1FD00120406061CE1FCE01D00100306004CA00606203
:1820900060636064606560666067606860696 06A606B606C606DD400CC
:1820A8000316CA00606CE36C856DCE005500FF80105A20006060FE80C6
:1820C0001067CE00CE2620616001CE00CE262062D00504006062E662C6
:1820D8002D6068632063D0030400F38010792062D00502006062FF80A8
:1820F000107D2062D004FDFF606220636064FF80109ED200039B558A74
:182108006080D10003FE5589A000CA00CB635C901133CE156B64216430
:18212000D2000336558A6080D10003995589A000CA00CB635C901133CA
:18213800CE156B642064D20002F6558A6080D10003345589A000CA0080
:18215000CB3E5C901197CE156B65558C20806064206600676066F480BB
:1821680010BAD00240006066FF8010BFD0034000F28010BF60662966C6
:18218000686AD00111D6006A586ACC20586B3C64386BCE146E683C6546
:18219800386ACE146E692068106960642264D004FFFC60612062D004A3
:1821B000FBFF6062E662FE8010DECE26D0010500606CE36C856CCA0106
:1821C8004E6CF680111BCA00606CE36C856D206DD004005F606D206DB2
:1821E000CD5AF58010F7CA006067FF801115206DCD4CF5801107206754
:1821F800CC0A6067D00304B0F2801105D00104B06067FF801115206DA5
:18221000CD48F58011152067CD0A6067D00204B0F4801115D001FB50A5
:182228006067206DCD52F580111BFF800414CA00606DCE26C2FFFE8029
:182240001124FE801124CE26C2FFFE80112AFE80112ACE26C2FFC3FF00
:18225800558BFB90112C558AFB90112BCE260000000000000000FFFF2E
:18227000FFFF00000001000200040005000500 03FFFFFFFAFFF4FFF06B
:18228800FFEEFFF2FFFA000700150022002A0028001B0004FFE8FFCC06
:1822A000FFB8FFB2FFBEFFDD00080037005F007500720053001FFFE04F
:1822B800FFA3FF77FF69FF7CFFADFFF3003E007C009F009F007C003EC3
:1822D000FFF3FFADFF7CFF69FF77FFA3FFE0001F005300720075005FC6
:1822E80000370008FFDDFFBEFFB2FFB8FFCCFFE80004001B0028002A7B
:18230000002200150007FFFAFFF2FFEEFFF0FFF4FFFAFFFF00030005CF
:182318000005000400020001 0000FFFFFFFF0000000000000000FFF3B3
:182330000000FFF00000FFE90000FFDE0000FFCD0000FFB60000FF98C9
:182348000000FF700000FF3C0000FEF90000FEA00000FE240000FD6AB5
:182360000000FC290000F95A0000EBAD00001453000006A6000003D768
:1823780000000296000001DC000001600000010700000 0C4000000901B
:1823900000000068000000 4A000000330000002200000017000000 1007
:1823A8000000000D000000320064009600C800F901290159018801B65F
:1823C00001E3020E02390262028A02B002D402F7031803360353036E4A
:1823D8000387039E03B203C403D403E103EC03F503FB03FF040003FF9E
:1823F00003FB03F503EC03E103D403C403B2039E0387036E035303368E
:18240800031802F702D402B0028A02620239020E01E301B60188015967
:18242000012900F900C80096006400320000FFCEFF9CFF6AFF38FF077F
:18243800FED7FEA7FE78FE4AFE1DFDF2FDC7FD9EFD76FD50FD2CFD09FC
:18245000FCE8FCCAFCADFC92FC79FC62FC4EFC3CFC2CFC1FFC14FC0BE4
:18246800FC05FC01FC00FC01FC05FC0BFC14FC1FFC2CFC3CFC4EFC622A
:18248000FC79FC92FCADFCCAFCE8FD09FD2CFD50FD76FD9EFDC7FDF2B1
:18249800FE1DFE4AFE78FEA7FED7FF07FF38FF6AFF9CFFCE0000003299
:1824B0000064009600C800F901290159018801B601E3020E0239026202
:1824C800028A02B002D402F7031803360353036E0387039E03B203C42D
:1824E00003D403E103EC03F503FB03FF040003FF03FB03F503EC03E173
:1824F80003D403C403B2039E0387036E03530336031802F702D402B0B2
:18251000028A02620239020E01E301B601880159012900F900C8009679
:0625280000640032000017
:00000001FF
```

Mark L. Hammond [KC4EBR]

2. Re: [DSP-93:2090] Re: DSP Virtual U.

From: "Robert L. Smith" <bobsmith@i2020.net>
Date: Mon, 01 Apr 1996 08:48:08 -0500
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <9604011409.AA12667@mail>
Rendered body type: text/plain

At 08:34 AM 3/31/96 -0600, Greg Jones wrote:
>Hello.
>
>Since the thread came up -- I have been working on general issues, but have
>yet to find a facilitator.
>
>The facilitator is the key to the effort. All the theory on e-mail
>exchanges of this method support this (one aspect of my PhD dissertation -
>which is focusing on discourse analysis of e-mail in individual mentoring
>situations).

>
>Anyway -- if we can find a facilitator that could pull it off and has the
>time -- TAPR would be interested in doing this in a heart beat. I hjave
>talked to the ARRL about getting access to their video that Jon Bloom did
>and still have more discussion ahead...several questions they have asked I
>havn't had a chance to reply to yet. But I agree that one tape is not going
>to really solve the situation totoally. The book you have found sounds like
>a really good source book for a course. I'll have to see if anyone at UT,
>Austin is using it.
>
>There are some additional items to consider as well - as Johan KC7WW and
>myself have been chating about.
>
>1. It will be hard to allow an unlimited set of DSP platforms to be
>involved, since a lot of the beginning questions will deal with platform
>speific issues.

  I think that is one of the strong points of the PC-DSP approach. It is
  a hardware independent environment.   RLS

Also, platform issues determine a lot of the ways you
>implement things. There are really three topics under DSP code development
>-- hardware issues, DSP theory, and code development issues.
>
  AS an embedded systems developer, the hardware issues and code issues
  seem second nature (At least it was until I started to write for the
  TMS320C family!!!) so DSP theory is my big hot button. -- RLS

>2. You want to limit the number of people in each session to some amount one
>facilitator can handle. This depends on the facilitaotr. I have seen some
>electronic session have hundred of folks and break down becuase the
>facilitator can not handle the questions each week. DSP topics are going to
>be complex in nature and this thus require more time and effort to respond
>to. A multiple facilitiaor appraoch might work the best.
>
   Amen!

>3. The course would be best done as a very limited things the first thime
>throught, say 5 people. This would give the facilitiaor the chance to
>develop the materials further and see what is missing. Doing it ona large
>scale the first time -- will probably present some larger issues and has a
>good possibility of failing the first time. As my major prof always say on
>research projects like this -- start small, it is worth doing badly the
>first time.

  Agree!!
>
>There are a few smaller issues involved, but I am not felling all that well
>this morning -- so going to go back to bed and take my medicine.
>
>If anyone knows of afacilitator(s) then let me know and we can start
>talking. TAPR.ORG has plenty of room for another listserv group to do
>this....and the educational aspects fit in very well with what TAPR wants
>to achieve. That of finding someway to increase the education on DSP
>topics.
>
>Cheers - Greg   MANY THANKS FOR YOUR THOUGHTS AND SUPPORT!!!   Bob
>
>>
>> Hello to other DSP knowledge phreques
>>
>> A few weeks ago there was a thead discussing creation of a 'Virtual
University'
>> for learning DSP. That was followed with some discussion of availability of
>> video taped workshops. I, for one, doubt that enough learing could be packed
>> into a reasonable quanity of video tapes to deal thoroughly with this
subject.
>>
>> I would like to toss out a idea for discussion:
>>
>> One of the participants in the thread mentioned the book, "Digital Signal
>> Processing A laboratory approach using PC-DSP". I acquired a copy and have
>> found it to be an extremely effective learning tool. The book is a real
>> sleeper.
>> It comes with a copy of of the student version of PC-DSP on floppy.
PC-DSP is
>> an interactive, PC based tool which can generate and analyze signals in the
>> digital domain. The book contains 140 exercises tailored to PC-DSP and
>> takes you

>> step-by-step from basic concepts through such topics as Fourier
transforms and
>> FIR/IIR filter design. Each topic is follpowed by a series of exercises
which
>> use PC-DSP to drive the points home. (an essential step in the case of my
>> thick skull). The book with floppy at $42.00 is an absolute bargin of
>> knowledge.
>>
>> My proposal is that we form a virtual university based on this book. The
>> essential
>> elements of which would be:
>>
>> 1. We set up an email news group as the 'laboratory/class room'.
>>
>> 2. Each 'student' obtain a copy of the book and start working the
>> exercises - the results of which would be pasted to email to be shared
>> by the class.
>>
>> 3. We need a (or perhaps a series of) volunteer 'tutor(s)' (with an
>> advanced understanding of the topic) to cirtique the results and post
>> the the correct solution to each exercise.
>>
>>
>> Any thoughts????
>>
>>   73 de Bob, wa4ypv   bobsmith@i2020.net
>>
>>
>
>

3. Re: [DSP-93:2095] Re: DSP Virtual U.

From: "Robert L. Smith" <bobsmith@i2020.net>
Date: Mon, 01 Apr 1996 08:48:15 -0500
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <9604011409.AC12667@mail>
Rendered body type: text/plain

At 01:50 PM 3/31/96 -0600, Kenneth R. Goodwin wrote:
>I went back into the .txt files supplied with PC-DSP and found the answer to
>the question regarding PC-DSP. The Professional Edition has a graphical
>plot printer capability. I now remember that the price stopped me dead in
>my tracks when I first looked into this. Doesn't mean "we" can't ask DSP
>Solutions for the current status and price.
>
>PC-DSP FOR WINDOWS
> --------------------
>
> Has the same features as in the PC-DSP professional edition, except it
> works within the Microsoft Windows environment (version 3.1 or higher).
> Tightly integrates with PC-SIM for Windows, but can be used without it
> as well. Available April 1994.
>
>PRODUCT   SITE LICENSE PRICE
>
>PC-DSP Professional Edition $ 500.00
>
>PC-DSP for Windows $ 500.00
>Available April 1994
>
>DSP Solutions   e-mail: pcdsp@minuet.siue.edu
>P.O.Box 341   DspSol@aol.com
>Glen Carbon, IL 62034
>

Hi Gang -- there is something wrong here. According to my PC-DSP floppy
the price of the PROFESSIONAL EDITION is $99.00 ($59 w/ Student I.D.!!!)

  73, Bob Smith

The 'student' version runs very well in a dos box under windows(95) and has
a very
'Windows' feel about it. I can see little advantage for a 'windows' version
unless it contains additional functionality (such as a printer plot program
;-{)

When faced with this type of problem in the past, I usually fire up my favorite
spread sheet program and use its plotting facilities. Quattro Pro has a 'fast

graph mode' that would work well for this application.

Surely, out there in the shareware/freeware domain, there are some basic plot utilities.

   73 de bob, wa4ypv   bobsmith@i2020.net
>

>>>Does anybody have a means to print the plots generated by the PC-DSP (DOS
>>>based program?
>>>
>>>Ron W5RKN mentions a Windows based version of the program being available.
>>>Can someone provide a source for this version?
>>>
>
>

4. Re: [DSP-93:2089] DSP Virtual U.

From: LANIER.R.A-@smtpgty.bwi.wec.com (LANIER.R.A-)
Date: Mon, 1 Apr 1996 09:24:55 -0500
To: dsp-93@tapr.org
Message-ID: <15FE6EF0.1858@smtpgty.bwi.wec.com>
Rendered body type: text/plain

This is an EXCELLENT idea!!! Sign me up!! I would be more than happy
     to work with this material and fellow hams who would like to advance
     the state of the art in digital communications.

     Tony, KE4ATO

_____ Reply Separator _____
Subject: [DSP-93:2089] DSP Virtual U.
Author: dsp-93@tapr.org at BALT.SMTP
Date: 3/31/96 7:31 AM

Hello to other DSP knowledge phreques

A few weeks ago there was a thead discussing creation of a 'Virtual University' for learning DSP. That was followed with some discussion of availability of video taped workshops. I, for one, doubt that enough learing could be packed into a reasonable quanity of video tapes to deal thoroughly with this subject.

I would like to toss out a idea for discussion:

One of the participants in the thread mentioned the book, "Digital Signal Processing A laboratory approach using PC-DSP". I acquired a copy and have found it to be an extremely effective learning tool. The book is a real sleeper.
It comes with a copy of of the student version of PC-DSP on floppy. PC-DSP is an interactive, PC based tool which can generate and analyze signals in the digital domain. The book contains 140 exercises tailored to PC-DSP and takes you
step-by-step from basic concepts through such topics as Fourier transforms and FIR/IIR filter design. Each topic is follpowed by a series of exercises which use PC-DSP to drive the points home. (an essential step in the case of my thick skull). The book with floppy at $42.00 is an absolute bargin of knowledge.

My proposal is that we form a virtual university based on this book. The essential
elements of which would be:

1. We set up an email news group as the 'laboratory/class room'.

2. Each 'student' obtain a copy of the book and start working the exercises - the results of which would be pasted to email to be shared by the class.

3. We need a (or perhaps a series of) volunteer 'tutor(s)' (with an advanced understanding of the topic) to cirtique the results and post the the correct solution to each exercise.

Any thoughts????

  73 de Bob, wa4ypv   bobsmith@i2020.net

5. DSP Virtual U

From: "James R. Kauten, M.D." <kauten@mindspring.com>
Date: Mon, 01 Apr 1996 21:11:57 -0500
To: dsp-93@tapr.org
Message-ID: <199604020214.VAA11289@borg.mindspring.com>
Rendered body type: text/plain

Received the following up to date info on PC-DSP for those interested:

```
>
>Dear Dr. Kauten:
>
>Thank you for your interest in PC-DSP.
>
>For up to date information about our products, please visit
>our web site at
>
>     http://www.dspsolutions.com.
>
>You can contact us via the following e-mail addresses:
>
>     DspSol@aol.com
>     info@dspsolutions.com
>
>Our mailing address is still as given in the textbook. You can
>obtain the current order form from our web site. Current prices
>are
>
>     PC-DSP for Windows     $139.00
>     PC-SIM for Windows     $159.00
>     Both                   $249.00
>
>     Shipping in the U.S.   $  7.00
>
>If ordering by credit card, you can also fax the completed order
>form to us at
>
>     (618) 288-4121
>
>Our fax line is open from 7:00 am to 7:00 pm U.S. central time.
>
>Sincerely,
>
>M.Acar
>DSP Solutions
>info@dspsolutions.com

Hope this helps, appears the price has gone up a bit since 1994.
73,
Jim, KO4RQ
=======================================================
James R. Kauten, M.D.,  KO4RQ
=======================================================
Phone:      (404) 355-9537 (Fax)            (404) 355-9515 (Daytime)
Address:  James R. Kauten, M.D.,  95 Collier Road,  Suite 2055
                                                Atlanta, GA,  30305-1955
=======================================================
Atlanta,  Home of the 1996 Olympics!!!
=======================================================
```

6. Re: [DSP-93:2103] DSP Virtual U

From: Greg Jones <wd5ivd@tapr.org>
Date: Mon, 1 Apr 1996 21:03:28 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199604020303.VAA28184@tapr.org>
Rendered body type: text/plain

Maybe someonme can check to see fi they have a bulk purchase. If there is
interest we could order several at one time..just have to cover the visa and
shipping charges on our end.

greg

```
>
> Received the following up to date info on PC-DSP for those interested:
>
> >
> >Dear Dr. Kauten:
> >
```

> >Thank you for your interest in PC-DSP.
> >
> >For up to date information about our products, please visit
> >our web site at
> >
> >   http://www.dspsolutions.com.
> >
> >You can contact us via the following e-mail addresses:
> >
> >   DspSol@aol.com
> >   info@dspsolutions.com
> >
> >Our mailing address is still as given in the textbook. You can
> >obtain the current order form from our web site. Current prices
> >are
> >
> >   PC-DSP for Windows $139.00
> >   PC-SIM for Windows $159.00
> >   Both $249.00
> >
> >   Shipping in the U.S. $ 7.00
> >
> >If ordering by credit card, you can also fax the completed order
> >form to us at
> >
> >   (618) 288-4121
> >
> >Our fax line is open from 7:00 am to 7:00 pm U.S. central time.
> >
> >Sincerely,
> >
> >M.Acar
> >DSP Solutions
> >info@dspsolutions.com
>
> Hope this helps, appears the price has gone up a bit since 1994.
> 73,
> Jim, KO4RQ
> ==
> James R. Kauten, M.D., KO4RQ
> ==
> Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
> Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
>   Atlanta, GA, 30305-1955
> ==
> Atlanta, Home of the 1996 Olympics!!!
> ==
>
>

7. Re: [DSP-93:2089] DSP Virtual U.

From: John Hempstead <jhemp@bright.net>
Date: Tue, 2 Apr 1996 06:10:00 -0500 (EST)
To: dsp-93@tapr.org
Message-ID: <199604021110.GAA29969@brutus.bright.net>
Rendered body type: text/plain

At 07:31 AM 3/31/96 -0600, you wrote:
>Hello to other DSP knowledge phreques
>
>A few weeks ago there was a thead discussing creation of a 'Virtual University'
>for learning DSP...

This seems like a very good idea and I would like to participate in the
learning. Please add me to a list of potential students.

I have ordered a copy of "Digital Signal Processing A laboratory approach
using PC-DSP" for $42 from the publisher.

Point three of your message(>3. We need a (or perhaps a series of) volunteer
'tutor(s)' (with an advanced understanding of the topic) to cirtique the
results and post the the correct solution to each exercise.) willl probably
be difficult to exicute. Flexability seems important here.

John Hempstead (N8HRC)

8. Re: [DSP-93:2104] Re: DSP Virtual U

From: LANIER.R.A-@smtpgty.bwi.wec.com (LANIER.R.A-)
Date: Tue, 2 Apr 1996 10:20:24 -0500
To: dsp-93@tapr.org
Message-ID: <16145550.1858@smtpgty.bwi.wec.com>
Rendered body type: text/plain

What about discounts for non-profit organizations such as TAPR? Does
     that count as well?

     Tony, KE4ATO

_____________________________ Reply Separator _____________________________
Subject: [DSP-93:2104] Re: DSP Virtual U
Author: dsp-93@tapr.org at BALT.SMTP
Date: 4/1/96 9:06 PM

Maybe someonme can check to see fi they have a bulk purchase. If there is
interest we could order several at one time..just have to cover the visa and
shipping charges on our end.

greg

>
> Received the following up to date info on PC-DSP for those interested:
>
> >
> >Dear Dr. Kauten:
> >
> >Thank you for your interest in PC-DSP.
> >
> >For up to date information about our products, please visit
> >our web site at
> >
> >   http://www.dspsolutions.com.
> >
> >You can contact us via the following e-mail addresses:
> >
> >   DspSol@aol.com
> >   info@dspsolutions.com
> >
> >Our mailing address is still as given in the textbook. You can
> >obtain the current order form from our web site. Current prices
> >are
> >
> >   PC-DSP for Windows $139.00
> >   PC-SIM for Windows $159.00
> >   Both $249.00
> >
> >   Shipping in the U.S. $ 7.00
> >
> >If ordering by credit card, you can also fax the completed order
> >form to us at
> >
> >   (618) 288-4121
> >
> >Our fax line is open from 7:00 am to 7:00 pm U.S. central time.
> >
> >Sincerely,
> >
> >M.Acar
> >DSP Solutions
> >info@dspsolutions.com
>
> Hope this helps, appears the price has gone up a bit since 1994.
> 73,
> Jim, KO4RQ
> ==
> James R. Kauten, M.D., KO4RQ
> ==
> Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
> Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
>   Atlanta, GA, 30305-1955
> ==
> Atlanta, Home of the 1996 Olympics!!!
> ==
>
>

9. RE: [DSP-93:2103] DSP Virtual U

From: Danial Aalberg <danialaa@MICROSOFT.com>
Date: Tue, 2 Apr 1996 09:35:55 -0800
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <c=US%a=_%p=msft%l=RED-04-MSG-960402173555Z-6045@red-06-imc.itg.microsoft.com>
Rendered body type: text/plain

How do I get removed from this alias. I though I sent mail to the host
but maybe I did it wrong. Can you send me mail or at least forward this
mail to the admin of this alias on how to get removed?

Thanks very much,
        Dan

>----------
>From: James R. Kauten, M.D.[SMTP:kauten@mindspring.com]
>Sent: Monday, April 01, 1996 6:20 PM
>To: dsp-93@tapr.org
>Subject: [DSP-93:2103] DSP Virtual U
>
>Received the following up to date info on PC-DSP for those interested:
>
>>
>>Dear Dr. Kauten:
>>
>>Thank you for your interest in PC-DSP.
>>
>>For up to date information about our products, please visit
>>our web site at
>>
>>   http://www.dspsolutions.com.
>>
>>You can contact us via the following e-mail addresses:
>>
>>   DspSol@aol.com
>>   info@dspsolutions.com
>>
>>Our mailing address is still as given in the textbook. You can
>>obtain the current order form from our web site. Current prices
>>are
>>
>>   PC-DSP for Windows $139.00
>>   PC-SIM for Windows $159.00
>>   Both $249.00
>>
>>   Shipping in the U.S. $ 7.00
>>
>>If ordering by credit card, you can also fax the completed order
>>form to us at
>>
>>   (618) 288-4121
>>
>>Our fax line is open from 7:00 am to 7:00 pm U.S. central time.
>>
>>Sincerely,
>>
>>M.Acar
>>DSP Solutions
>>info@dspsolutions.com
>
>Hope this helps, appears the price has gone up a bit since 1994.
>73,
>Jim, KO4RQ
>===
>James R. Kauten, M.D., KO4RQ
>===
>Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
>Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
>   Atlanta, GA, 30305-1955
>===
>Atlanta, Home of the 1996 Olympics!!!
>===
>
>

10. Re: [DSP-93:2106] Re: DSP Virtual U

From: "Lawrence F. Johnston" <ljohnsto@carbon.cudenver.edu>
Date: Tue, 2 Apr 1996 10:37:42 -0700 (MST)
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <Pine.OSF.3.91.960402103627.10102A-100000@carbon.cudenver.edu>
Rendered body type: text/plain

With the availablility of a tutor and other students,
I'd be interested in participating.

Larry, W0EIE

11. PC-DXP for Windows

From: kauten@mindspring.com (James R. Kauten, M.D.)
Date: Tue, 02 Apr 1996 21:16:34 -0600
To: dsp-93@tapr.org
Cc: wd5ivd@tapr.org
Message-ID: <199604030209.VAA05638@borg.mindspring.com>
Rendered body type: text/plain

I received the following information, perhaps TAPR would like to facilitate
a bulk purchase if there are enough people interested in PC-DSP or PC-SIM
or both (Windows versions):

>Return-Path: oalkin@dspsolutions.com
>Date: Tue, 02 Apr 96 08:53:50 -0600
>X-UIDL: 828459186.056
>From: Oktay Alkin <oalkin@dspsolutions.com>
>To: kauten@mindspring.com
>Subject: Re: PC-DSP for Windows
>
>Dear Dr. Kauten:
>
>If you could give us some information on the quantity involved in
>the bulk purchase, we would be happy to quote you discounted prices
>on PC-DSP, PC-SIM, and the bundle.
>
>Thank you for your interest in our products.
>
>Sincerely,
>
>Oktay Alkin, Ph.D.
>DSP Solutions
>oalkin@dspsolutions.com
>
73,

Jim Kauten, MD, KO4RQ

12. Re: [DSP-93:2109] PC-DXP for Windows

From: LANIER.R.A-@smtpgty.bwi.wec.com (LANIER.R.A-)
Date: Wed, 3 Apr 1996 08:21:06 -0500
To: dsp-93@tapr.org
Message-ID: <16286760.1858@smtpgty.bwi.wec.com>
Rendered body type: text/plain

I would be interested in purchasing a copy of the software - both
     PC-DSP and PC-SIM for Windows. Please keep my name in a file for
     future reference. Thanks!

     73d de
     Tony, KE4ATO
     lanier.r.a@nort.bwi.wec.com

_____ Reply Separator _____
Subject: [DSP-93:2109] PC-DXP for Windows
Author: dsp-93@tapr.org at BALT.SMTP
Date: 4/2/96 8:14 PM

I received the following information, perhaps TAPR would like to facilitate
a bulk purchase if there are enough people interested in PC-DSP or PC-SIM
or both (Windows versions):

>Return-Path: oalkin@dspsolutions.com
>Date: Tue, 02 Apr 96 08:53:50 -0600
>X-UIDL: 828459186.056
>From: Oktay Alkin <oalkin@dspsolutions.com>
>To: kauten@mindspring.com

>Subject: Re: PC-DSP for Windows
>
>Dear Dr. Kauten:
>
>If you could give us some information on the quantity involved in
>the bulk purchase, we would be happy to quote you discounted prices
>on PC-DSP, PC-SIM, and the bundle.
>
>Thank you for your interest in our products.
>
>Sincerely,
>
>Oktay Alkin, Ph.D.
>DSP Solutions
>oalkin@dspsolutions.com
>
73,

Jim Kauten, MD, KO4RQ

13. notice:-->PC-DSP stuff

From: hammond@camel.campbell.edu (Mark L. Hammond)
Date: Wed, 3 Apr 1996 12:38:20 -0500 (EST)
To: dsp-93@tapr.org
Message-ID: <v01540b07ad881f710e24@[152.38.1.2]>
Rendered body type: text/plain

Hey Gang,

I don't think ANYBODY has volunteered to be the coordinator for this little
project yet, so my best guess is that nobody has really started "a list"
yet.

We apparently need somebody to start/coordinate this...somebody should
speak up and take charge maybe?? And create such a list?

>   I would be interested in purchasing a copy of the software - both
>   PC-DSP and PC-SIM for Windows. Please keep my name in a file for
>   future reference. Thanks!
>
>   73d de
>   Tony, KE4ATO
>   lanier.r.a@nort.bwi.wec.com
>
>

Mark L. Hammond [KC4EBR]
Campbell University

14. Re: [DSP-93:2110] Re: PC-DXP for Windows

From: xbrucex <xbrucex@popmail.mcs.net>
Date: Thu, 04 Apr 1996 05:46:44 -0600
To: dsp-93@tapr.org
Message-ID: <199604041147.FAA28045@kitten.mcs.com>
Rendered body type: text/plain

Group -
I would be interested in purchasing a copy of both PC-DSP and PC-SIM (both
for windows) preferably the developers version. Please keep me informed as
the possibility of a TAPR sponsored group purchase proceeds.

Thanks.

Bruce Cutting K9BC

At 08:14 4/3/96 -0600, you wrote:
>   I would be interested in purchasing a copy of the software - both
>   PC-DSP and PC-SIM for Windows. Please keep my name in a file for
>   future reference. Thanks!
>
>   73d de
>   Tony, KE4ATO
>   lanier.r.a@nort.bwi.wec.com
>
>
>_____ Reply Separator
_____

>Subject: [DSP-93:2109] PC-DXP for Windows
>Author: dsp-93@tapr.org at BALT.SMTP
>Date: 4/2/96 8:14 PM
>
>
>I received the following information, perhaps TAPR would like to facilitate
>a bulk purchase if there are enough people interested in PC-DSP or PC-SIM
>or both (Windows versions):
>
>>Return-Path: oalkin@dspsolutions.com
>>Date: Tue, 02 Apr 96 08:53:50 -0600
>>X-UIDL: 828459186.056
>>From: Oktay Alkin <oalkin@dspsolutions.com>
>>To: kauten@mindspring.com
>>Subject: Re: PC-DSP for Windows
>>
>>Dear Dr. Kauten:
>>
>>If you could give us some information on the quantity involved in
>>the bulk purchase, we would be happy to quote you discounted prices
>>on PC-DSP, PC-SIM, and the bundle.
>>
>>Thank you for your interest in our products.
>>
>>Sincerely,
>>
>>Oktay Alkin, Ph.D.
>>DSP Solutions
>>oalkin@dspsolutions.com
>>
>73,
>
>Jim Kauten, MD, KO4RQ
>
>
>

15. PC-DSP Software for Windows (Purchase Plan)

From: "James R. Kauten, M.D." <kauten@mindspring.com>
Date: Fri, 05 Apr 1996 00:00:37 -0500
To: dsp-93@tapr.org
Cc: hfsig@tapr.org
Message-ID: <199604050502.AAA16892@borg.mindspring.com>
Rendered body type: text/plain

For the past several weeks, the subject of digital signal processing has
been discussed on the TAPR DSP list serv. Software designed to facilitate
the further learning and modeling of DSP entities has also been discussed
(PC-DSP). Mention was made of a DSP course utilizing a text and a program
called PC-DSP. Thru discussion with PC Solutions, the developer of the
software, it was discovered that a Windows version is available. There
appears to be interest amongst members of the sig to purchase this software.

The web site for DSP Solutions is: http://www.dspsolutions.com. Samples of
PC-DSP for Windows and PC-SIM for Windows can be downloaded to sample.
Greg Jones, et.al. have made the suggestion that we inquire as to the
possibility of a bulk purchase discount.

PC Solutions is willing to give a volume discount, if there is enough
interest. The exact discount amount is unknown until the magnitude of the
order isdetermined.   It is possible that a group purchase could be made
thru TAPR, provided the discount is enough to defray the cost of processing
(thru TAPR) and yet provide a reasonable price to the purchasers.

Please send me your name if you are interested in purchasing either or both
of these programs. It should also be known that I have no monetary interest
in PC Solutions, my only interest is in obtaining the software at a
reasonable price for both myself and other hams who are interested.

If enough interest is generated, I will send out a summary as to the
discount and ordering details. If little interest is generated, I will let
those who responded know so they can place an order on their own.

73, Jim, KO4RQ
==
James R. Kauten, M.D., KO4RQ
==
Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055

Atlanta, GA, 30305-1955
==========
Atlanta, Home of the 1996 Olympics!!!
==========

16. Re: [DSP-93:2113] PC-DSP Software for Windows (Purchase Plan)

From: "Kenneth R. Goodwin, Jr." <kgoodwin@draper.com>
Date: Fri, 05 Apr 1996 06:40:32 -0600
To: dsp-93@tapr.org
Message-ID: <2.2.32.19960405124032.00684f2c@mickey-csdl.jsc.nasa.gov>
Rendered body type: text/plain

Thanks for picking up the ball.

I recently purchased the PC-DSP book from the publisher along with the DOS program. I like the program but miss a capability to print the plots which I see is an advertised capability of the Windows version. I have started thru the book, but work constraints have forced large discontinuties which having print-outs of the solutions would allow me to quickly review past lessons.

Thus I am interested in the Windows version and probably both programs, PC-DSP for Windows and PC-SIM. I have a concern however since my baseline OS is Win'95. I do notice that PC-DSP is a 32-bit application that will use the Win'95 capabilities without the add-on 32-bit library required for Win 3.1, but it is still a legacy program. (I've come to really appreciate true Win'95 programs wrt Win 3.1). However, on the other side it sure looks like DSP Solutions is moving in a Win95 direction where there Web page provides updates, which seems like a good customer interface.

So now that I've bored you with my non-topic related viewpoints, sign me up for both programs if your exercise comes to closure. I am a member of TAPR (brand new) awaiting my DSP-93 unit.

Ken Goodwin, K5RG
894 Kingsgate Lane
Houston, TX 77058
Telephone: 713-333-2636 (home)
713-483-8244 (work)
713-483-9110 (fax)
e-mail: kgoodwin@draper.com

At 11:09 PM 4/4/96 -0600, you wrote:
>For the past several weeks, the subject of digital signal processing has
>been discussed on the TAPR DSP list serv. Software designed to facilitate
>the further learning and modeling of DSP entities has also been discussed
>(PC-DSP). Mention was made of a DSP course utilizing a text and a program
>called PC-DSP. Thru discussion with PC Solutions, the developer of the
>software, it was discovered that a Windows version is available. There
>appears to be interest amongst members of the sig to purchase this software.
>
>The web site for DSP Solutions is: http://www.dspsolutions.com. Samples of
>PC-DSP for Windows and PC-SIM for Windows can be downloaded to sample.
>Greg Jones, et.al. have made the suggestion that we inquire as to the
>possibility of a bulk purchase discount.
>
>PC Solutions is willing to give a volume discount, if there is enough
>interest. The exact discount amount is unknown until the magnitude of the
>order isdetermined.   It is possible that a group purchase could be made
>thru TAPR, provided the discount is enough to defray the cost of processing
>(thru TAPR) and yet provide a reasonable price to the purchasers.
>
>Please send me your name if you are interested in purchasing either or both
>of these programs. It should also be known that I have no monetary interest
>in PC Solutions, my only interest is in obtaining the software at a
>reasonable price for both myself and other hams who are interested.
>
>If enough interest is generated, I will send out a summary as to the
>discount and ordering details. If little interest is generated, I will let
>those who responded know so they can place an order on their own.
>
>73, Jim, KO4RQ
>==========
>James R. Kauten, M.D., KO4RQ
>==========
>Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
>Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
>   Atlanta, GA, 30305-1955
>==========

>Atlanta, Home of the 1996 Olympics!!!
>==
>
>
>

17. Re: [DSP-93:2113] PC-DSP Software for Windows (Purchase Plan)

From: "Lawrence F. Johnston" <ljohnsto@carbon.cudenver.edu>
Date: Fri, 5 Apr 1996 08:13:41 -0700 (MST)
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <Pine.OSF.3.91.960405081135.19472A-100000@carbon.cudenver.edu>
Rendered body type: text/plain

I am interested in learning as much as I can about DSP. However,
my last formal math class was high school algebra in 1952, although
I am a highly motivated learner. Is my math handicap such that I
should pass on this project?

Larry, W0EIE

18. TAPR DSP Web Pages

From: "Steven R. Bible" <srbible@mindport.net>
Date: Fri, 05 Apr 1996 12:14:07 -0500
To: dsp-93@tapr.org, hfsig@tapr.org
Message-ID: <1.5.4b12.32.19960405171407.00694788@mindport.net>
Rendered body type: text/plain

I have created what is a beginning of Digital Signal Processing web pages at
the TAPR web server. Please point your browsers to:

    http://www.tapr.org/dsp/

THESE ARE YOUR PAGES and they are by no means finished. Presently there is
information on the Alef Null DSP CARD 4 and Johan's EVM56K collection of
programs. I have a text book bibliography and I've started on an articles
bibliography. There are also pointers to other internet sources.

I need your help in making these pages what you want in DSP experimentation
web pages. My goal is trying to organize everything there is concerning
amateur radio DSP in one location. When I got started in DSP, I was
overwelmed at the amount of information there was and how unorganized it is.
That is what these pages are for. Remember when you got started in DSP?
Remember how frustrating it was? Now is your chance to cahnge all this and
organize all the material we can find on amateur DSP experimenting.

So here's what I would like to do.

 - If you know of a DSP project, past, present or future, let's create an
individual web page for each. Some projects I am aware of:

    - DSP-93
    - EVM56K (started)
    - TI DSK C5x
    - Alef Null DSP CARD (in progress)
    - any past and future projects

 - Software. Organize software by project and function. Thus if you own a
particular platform you can go to that platforms web page and see what's
available. On the flip side, software organized by function so that if
there is a partcular filter, modem, whatever you are interested in, you can
review the source code for that function in attempts to learn or port over
to another platform.

 - Educational. We all want to learn more about DSP. Perhaps lessons can
be posted here.

 - any other ideas?

Please make suggestions and comments on the content, format, etc. that would
make the pages work for you and others interested in DSP. If you have
contributions to add, please send them to me, I'll add them. If you know of
information that should be added, let me know, I'll add it. If you feel the
pages would read better one way than another, let me know also. THESE ARE
YOUR PAGES.

Onward!

- Steve, N7HPR

n7hpr@amsat.org
n7hpr@tapr.org

19. Re: [HFSIG:1017] Re: PC-DSP Software for Windows (Purchase Plan)

From: "James R. Kauten, M.D." <kauten@mindspring.com>
Date: Fri, 05 Apr 1996 20:40:17 -0500
To: hfsig@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <199604060142.UAA11193@borg.mindspring.com>
Rendered body type: text/plain

At 06:50 PM 4/5/96 -0600, you wrote:
>What's the approximate price range????
>73, Jim wb4gcs@amsat.org
>At 11:14 PM 4/4/96 -0600, you wrote:
>>For the past several weeks, the subject of digital signal processing has
>>been discussed on the TAPR DSP list serv....
>>The web site for DSP Solutions is: http://www.dspsolutions.com...
>>PC Solutions is willing to give a volume discount,...

List (non discount) prices per PC Solutions are as follows:

PC-DSP for Windows $139.00
PC-SIM for Windows $159.00

Both $249.00
==========
James R. Kauten, M.D., KO4RQ
==========
Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
                                            Atlanta, GA, 30305-1955
==========
Atlanta, Home of the 1996 Olympics!!!
==========

20. Re: [DSP-93:2115] Re: PC-DSP Software for Windows (Purchase Plan)

From: "James R. Kauten, M.D." <kauten@mindspring.com>
Date: Fri, 05 Apr 1996 20:55:18 -0500
To: dsp-93@tapr.org
Message-ID: <199604060157.UAA16377@borg.mindspring.com>
Rendered body type: text/plain

At 09:22 AM 4/5/96 -0600, you wrote:
>I am interested in learning as much as I can about DSP. However,
>my last formal math class was high school algebra in 1952, although
>I am a highly motivated learner. Is my math handicap such that I
>should pass on this project?
>
>Larry, W0EIE
>
>
Larry, it has been 22 years since I studied math in college for my EE
degree. The math is challenging, but with proper texts could be
accomplished. A challenge to say the least but if you like math, you will
like this.

73, Jim
==========
James R. Kauten, M.D., KO4RQ (kauten@mindspring.com)
==========
Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
                                            Atlanta, GA, 30305-1955
==========
Atlanta, Home of the 1996 Olympics!!!
==========

21. Re: [DSP-93:2114] Re: PC-DSP Software for Windows (Purchase Plan)

From: chbrain@dircon.co.uk (Charles Brain)
Date: Sat, 06 Apr 1996 08:07:52 +0000
To: dsp-93@tapr.org
Message-ID: <199604060715.AA19886@felix.dircon.co.uk>
Rendered body type: text/plain

>Thus I am interested in the Windows version and probably both programs,
>PC-DSP for Windows and PC-SIM. I have a concern however since my baseline

>OS is Win'95. I do notice that PC-DSP is a 32-bit application that will use
>the Win'95 capabilities without the add-on 32-bit library required for Win
>3.1, but it is still a legacy program. (I've come to really appreciate true
>Win'95 programs wrt Win 3.1). However, on the other side it sure looks like
>DSP Solutions is moving in a Win95 direction where there Web page provides
>updates, which seems like a good customer interface.
>
>
>Ken Goodwin, K5RG
>
Hello Ken,

Don't worry, I use both PC-DSP and PC-SIM under Win95 and they work fine. In
fact they work better than under Win 3.11 with 32 bit extensions. In fact it
has only
been since I got Win 95 that I have managed to get the automatic code generation
to work, it used to crash before. The MMI is still a 16 bit application, it
is the maths
(sorry for the english spelling, I think you use math without the s) engine
that is 32 bit.
You get both 16 and 32 bit stuff with the package.

Regards Charles G4GUO.

22. Re: [DSP-93:2111] notice:-->PC-DSP stuff

From: LANIER.R.A-@smtpgty.bwi.wec.com (LANIER.R.A-)
Date: Sat, 6 Apr 1996 11:57:22 -0500
To: dsp-93@tapr.org
Message-ID: <166A1FA0.1858@smtpgty.bwi.wec.com>
Rendered body type: text/plain

Well, maybe I shouldn't do this, but ...

     I will help in forming a list of those who want to join the "club." I
     would like to see more discussion involving DSP-related issues. I am
     reading this note on Saturday (day before Easter), so if someone has
     stepped forward, then my appologies. I can gather ideas from the
     various members of the group and send out a notice as to what we would
     like to do next.

     If this helps, let me know.

     73 de
     Tony, KE4ATO

_____________________________ Reply Separator _____________________________
Subject: [DSP-93:2111] notice:-->PC-DSP stuff
Author: dsp-93@tapr.org at BALT.SMTP
Date: 4/3/96 11:42 AM

Hey Gang,

I don't think ANYBODY has volunteered to be the coordinator for this little
project yet, so my best guess is that nobody has really started "a list"
yet.

We apparently need somebody to start/coordinate this...somebody should
speak up and take charge maybe?? And create such a list?

>   I would be interested in purchasing a copy of the software - both
>   PC-DSP and PC-SIM for Windows. Please keep my name in a file for
>   future reference. Thanks!
>
>   73d de
>   Tony, KE4ATO
>   lanier.r.a@nort.bwi.wec.com
>
>

Mark L. Hammond [KC4EBR]
Campbell University

23. Re: [DSP-93:2113] PC-DSP Software for Windows (Purchase Plan

From: LANIER.R.A-@smtpgty.bwi.wec.com (LANIER.R.A-)
Date: Sat, 6 Apr 1996 12:02:05 -0500
To: dsp-93@tapr.org
Message-ID: <166A2E90.1858@smtpgty.bwi.wec.com>
Rendered body type: text/plain

Jim,

I would like to be added to the list. I sent out a general notice to the DSP list server suggesting what you have written here. If you would like help in corridating this effort, let me know.

Tony, KE4ATO

_____ Reply Separator _____
Subject: [DSP-93:2113] PC-DSP Software for Windows (Purchase Plan)
Author: dsp-93@tapr.org at BALT.SMTP
Date: 4/4/96 11:09 PM

For the past several weeks, the subject of digital signal processing has been discussed on the TAPR DSP list serv. Software designed to facilitate the further learning and modeling of DSP entities has also been discussed (PC-DSP). Mention was made of a DSP course utilizing a text and a program called PC-DSP. Thru discussion with PC Solutions, the developer of the software, it was discovered that a Windows version is available. There appears to be interest amongst members of the sig to purchase this software.

The web site for DSP Solutions is: http://www.dspsolutions.com. Samples of PC-DSP for Windows and PC-SIM for Windows can be downloaded to sample. Greg Jones, et.al. have made the suggestion that we inquire as to the possibility of a bulk purchase discount.

PC Solutions is willing to give a volume discount, if there is enough interest. The exact discount amount is unknown until the magnitude of the order isdetermined. It is possible that a group purchase could be made thru TAPR, provided the discount is enough to defray the cost of processing (thru TAPR) and yet provide a reasonable price to the purchasers.

Please send me your name if you are interested in purchasing either or both of these programs. It should also be known that I have no monetary interest in PC Solutions, my only interest is in obtaining the software at a reasonable price for both myself and other hams who are interested.

If enough interest is generated, I will send out a summary as to the discount and ordering details. If little interest is generated, I will let those who responded know so they can place an order on their own.

73, Jim, KO4RQ
==========
James R. Kauten, M.D., KO4RQ
==========
Phone: (404) 355-9537 (Fax) (404) 355-9515 (Daytime)
Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
Atlanta, GA, 30305-1955
==========
Atlanta, Home of the 1996 Olympics!!!
==========

24. Re: [DSP-93:2116] TAPR DSP Web Pages

From: LANIER.R.A-@smtpgty.bwi.wec.com (LANIER.R.A-)
Date: Sat, 6 Apr 1996 12:16:28 -0500
To: dsp-93@tapr.org
Message-ID: <166A66D0.1858@smtpgty.bwi.wec.com>
Rendered body type: text/plain

Steve,

Thanks for pursuing this idea. It is definitely a good idea to post as much info as possible, but in a clear, understandable manner. Otherwise, we would have web pages that looked like what's already published!

If someone is working on a project, should they write the web pages or will that be performed by someone else?

I am also interested to hear from anyone who is interested in using the Analog Devices DSP chips. I have a EZkit that I won as a door prize at a seminar and this could be used as a development platform.

The only limitation is the processor (ADSP2101) is a fixed-point processor.

73s de
Tony, KE4ATO

_____ Reply Separator _____
Subject: [DSP-93:2116] TAPR DSP Web Pages
Author: dsp-93@tapr.org at BALT.SMTP
Date: 4/5/96 11:27 AM

I have created what is a beginning of Digital Signal Processing web pages at the TAPR web server. Please point your browsers to:

http://www.tapr.org/dsp/

THESE ARE YOUR PAGES and they are by no means finished. Presently there is information on the Alef Null DSP CARD 4 and Johan's EVM56K collection of programs. I have a text book bibliography and I've started on an articles bibliography. There are also pointers to other internet sources.

I need your help in making these pages what you want in DSP experimentation web pages. My goal is trying to organize everything there is concerning amateur radio DSP in one location. When I got started in DSP, I was overwelmed at the amount of information there was and how unorganized it is. That is what these pages are for. Remember when you got started in DSP? Remember how frustrating it was? Now is your chance to cahnge all this and organize all the material we can find on amateur DSP experimenting.

So here's what I would like to do.

- If you know of a DSP project, past, present or future, let's create an individual web page for each. Some projects I am aware of:

  - DSP-93
  - EVM56K (started)
  - TI DSK C5x
  - Alef Null DSP CARD (in progress)
  - any past and future projects

- Software. Organize software by project and function. Thus if you own a particular platform you can go to that platforms web page and see what's available. On the flip side, software organized by function so that if there is a partcular filter, modem, whatever you are interested in, you can review the source code for that function in attempts to learn or port over to another platform.

- Educational. We all want to learn more about DSP. Perhaps lessons can be posted here.

- any other ideas?

Please make suggestions and comments on the content, format, etc. that would make the pages work for you and others interested in DSP. If you have contributions to add, please send them to me, I'll add them. If you know of information that should be added, let me know, I'll add it. If you feel the pages would read better one way than another, let me know also. THESE ARE YOUR PAGES.

Onward!

- Steve, N7HPR

n7hpr@amsat.org
n7hpr@tapr.org

25. TNCINIT.EXE help

From: "Bob Smith" <bsmith@msn.com>
Date: Sat, 6 Apr 96 12:42:05 UT
To: dsp-93@tapr.org
Message-ID: <UPMAIL01.19960406185359052 2@msn.com>
Rendered body type: text/plain

Has anyone gotten this working with a DSP-93/PACCOM-93? Trying today and getting major hung up. Would like to use WISP and switch automatically back and forth between AO-16 and UO-22.

Thanks.

From: dsp-93@tapr.org on behalf of Ronald G. Parsons
Sent: Sunday, February 18, 1996 3:32 PM
To: dsp-93@tapr.org
Subject: [DSP-93:1981] TNCINIT.EXE uploaded

I have uploaded the (DOS) program TNCINIT.EXE to the dsp93 upload
directory. Mark will move it to the util directory (won't he, Mark).

This file can be executed from a .BAT file and provides a very flexible way
to send characters to the serial port. Delays are provided. Also control
characters.

This is ideal for setting up the PacComm DSP/TNC as it makes it possible to
go in and out of PASSTHRU.

The following Help is accessed by executing TNCINIT without parameters.

==========

TNCINIT   Kissmode switching or New Configuration of a
V 9.0   TAPR or WA8DED/TF-SW eprom from Initialisation file.

(c)DL5FBD

  Call: TNCINIT Parameter list

The Parameter requires a ":" separator before the value.
The Filename must be given, all other Parameters are
started with default values as shown in brackets ( ) below.

 F:File   Name of the Intialisation file
 C:Port   Serial Port COMx   (1)
 C:Port,Adr,IRQ complete Port Definition
 B:Baudrate   Baudrate   (9600)
 W:Word length Word length 7,8   (8)
 P:Parity   Parity K=none, G=even, U=odd   (K)
 SB:Stopbit   Stopbits 1,2   (1)
 H:Handshake   Handshake K=none H=hardware S=soft. (K)
 S:TNCSoft   Software Ident. "TAPR","TF"   (TAPR)
 E: Data Echo on Monitor   (no Echo)
 U:hh,mm   UTC-Time offset in Hours, Minutes   (0,0)

Parameter File Command Lines are able to be established. With
these Command Lines, TNCINIT-Actions can be requested, Delay
Times redefined or executed.

 D:Time (ms)   General Delay in ms
                 This Delay time can be requested at optional
                 positions in the Parameter File and will be
                 awaited directly.
 CD:Time (ms)   Character Delay in ms
                 This Delay time will be observed between the
                 transmission of each Character.
 LD:Time (ms)   Line Delay in ms
                 This Delay time will be executed at the end of a
                 transferred line and gives the TNC extra time
                 for the interpretation and execution.
 K: Kiss Reset Command
                 Carries out the KISS-Reset command dependant on
                 the WA8DED/TF-SW or TAPR-SW.
 U: Time and Date Transfer.
 U:hh,mm   Time with Offset (Hrs,Min) from UTC
                 Transfer the actual PC-sytem time to TNC.
 E:ON E:OFF   Switch Echo on "ON" or off "OFF"
                 Serves in the testing of Delaytime parameter
 BR:Time (ms)   Sends, for the indicated time a Break Signal.
 BY:xx,yy,zz,.. Sends a series of Bytes in Hexadecimal ($n) or
                 Decimal. Each is separated by commas as shown.
                 It is therefore possible to transmit to the
                 TNC Ctrl-Characters
 CL:ON CL:OFF   CL:ON cause the TNC to be toggled into the Command
                 Mode before the transfer of a line.
                 CL:OFF switches off this toggle, eg. for the
                 Initialisation of TNC-Mailboxes (PK232 et.al)
 HR: Toggles a TNC with WA8DED/TF-Software out of Host

```
                Mode into the Terminal Mode.
 L:xx           Targets Set/Reset of the Handshake controls
                RTS, DTS by means of a Control Byte in the form
                DTR= Bit 1 and RTS= Bit 0 for RS232-Multiplex
                hardware such as eg.  TNCIO-Card
                Certainly the dependancy xx for the TNC
                Number at the Multiplexer must be probed.
 : Remark       Add a Remark to the Documentation. A Remark line
                is not interpreted by TNCINIT when preceeded
                by a colon (:) at the beginning of a line.

Independent of this, a remark may follow a TNCINIT-Command
if it is separated from the command by at least one space or a
Tabulator character.

e.g.   CD:25     25ms  Character Delay
       LD:200    200ms Line Delay

These Comments make an Initialisation file understandable and
therefore to easy to manipulate.

Typical example for COM3 Address=338H IRQ=2 with 19200 Bd.
and the Initialisation file KISSOFF.DAT for TAPR-SW.

TNCINIT C:3,$338,2 B:19200 S:TAPR F:KISSOFF.DAT

The Initialisation file KISSOFF.DAT can look as follows:
   : Demonstration of a KISS-Reset and Intialisation file
   CD:20            Character Delay   20ms
   LD:100           Command Delay     100ms
   K:               KISS-Reset sent
   D:2000           After KISS-Reset 2s Initialisation pause
   AWLEN 8
   PARITY 0
   MYCALL DL5FBD
   RESTART
   D:2000           After RESTART 2s Initialisation pause

Here the Transfer Parameters are: 8 Bit, no Parity and
1 Stopbit which are the predefined standard in TNCINIT.


=================


Ron W5RKN

also:
rparsons@bga.com




----------------------------------------
Bob Smith
Desktop and Online Services Strategy Group
mailto:rsmith@internetmci.com
http://www2.fyionline.com/~bsmith
Tel. 770-668-5231
```

26. Re: [DSP-93:2123] TNCINIT.EXE help

```
From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sat, 6 Apr 1996 14:13:10 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b01ad8c805dfe0d@[204.251.33.30]>
Rendered body type: text/plain
```

```
>Has anyone gotten this working with a DSP-93/PACCOM-93?  Trying today and
>getting major hung up.  Would like to use WISP and switch automatically back
>and forth between AO-16 and UO-22.
>
>Thanks.
>
>----------------------------------------
>Bob Smith


I have used it in a number of situations. Can you be a "little" more
explicit about what problem(s) you are having?
```

Ron W5RKN

also:
rparsons@bga.com

27. Re: TNCINIT.EXE help

From: "Bob Smith" <bsmith@msn.com>
Date: Sat, 6 Apr 96 16:06:26 UT
To: dsp-93@tapr.org
Message-ID: <UPMAIL01.199604062211060242@msn.com>
Rendered body type: text/plain

Thanks for replying Ron.

I'm trying to actuate the various modems on the DSP-93 using the PASSTHRU
command then switch back to command mode, then into kiss mode.

I would like to be able to switch, unattended, between PSK and FSK modems.
Ideally I would like to be able to load OBJ files but I will settle for
choosing the built in ROM listings.

Here's what I have:

EPROM Version: 3.2.9.3 2/11/96

tncinit C:3,$3E8,9 B:19200 S:TAPR F:TNCFSKP1.DAT E:ON

Contents of TNCFSKP1.DAT
CD:20
LD:100
D:2000
PASSTHRU ON
D:1000
R
D:500
PO
BY:$03,$03,$03
D:3000
KISS ON

I've tried varying all of the delays (takes me back to my procomm script
days!). I usually get funny characters (not consistent - sometimes it works
right) in front of the commands messing things up quite a bit (I have echo
on). Also tried various BY settings such as BY:3,3,3; BY:$3,$3$3;
BY:03,03,03, etc - can't get out of PASSTHRU on any of the runs.

Also tried Hardware, Software and no flow control switches.

Thanks for any help

From: dsp-93@tapr.org on behalf of Ronald G. Parsons
Sent: Saturday, April 06, 1996 9:14 PM
To: dsp-93@tapr.org
Subject: [DSP-93:2124] Re: TNCINIT.EXE help

>Has anyone gotten this working with a DSP-93/PACCOM-93? Trying today and
>getting major hung up. Would like to use WISP and switch automatically back
>and forth between AO-16 and UO-22.
>
>Thanks.
>
>--
>Bob Smith

I have used it in a number of situations. Can you be a "little" more
explicit about what problem(s) you are having?

Ron W5RKN

also:
rparsons@bga.com

```
---------------------------------------
Bob Smith
Desktop and Online Services Strategy Group
mailto:rsmith@internetmci.com
http://www2.fyionline.com/~bsmith
Tel. 770-668-5231
```

28. Re: [DSP-93:2125] Re: TNCINIT.EXE help

```
From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sat, 6 Apr 1996 20:34:49 -0600
To: dsp-93@tapr.org
Message-ID: <v02140b00ad8cd81c7e6b@[204.251.33.30]>
Rendered body type: text/plain
```

```
>Thanks for replying Ron.
>
>I'm trying to actuate the various modems on the DSP-93 using the PASSTHRU
>command then switch back to command mode, then into kiss mode.
>
...
>Bob Smith
>Desktop and Online Services Strategy Group
>mailto:rsmith@internetmci.com
>http://www2.fyionline.com/~bsmith
>Tel. 770-668-5231


Here's what I've found to work:


TNCINIT B:19200 F:TNC1.TXT


PASSTHRU ON
D:1000
BY:$0D <cr>
D:1000
BY:$52 R
D:1000
BY:$50,$4D PM
D:10000
BY:3,3,3


The thing that made it work was the D:10000. I don't know why such a large
value was needed, but ...

Also MSPE will put the TNC into KISS, you should not do it.

I found more docs.

Ron W5RKN
--------------------------------------------------------------------------------

TNCINIT V9.0
============

The Program TNCINIT is an Initialisation Program for TNCs with TAPR or
WA8DED/NORD><LINK Firmware.
The Program has been developed for the automatic reconfiguration of TNCs
for KISS-Mode-Employment with TAPR 1.1.6 Software. In the Version presented
here; the Program can:

   a) Switch on the KISS-Mode
   b) Switch off the KISS-Mode and TNC-Reconfiguration
   c) Reconfiguration of TNCs after SW-Coldstart e.g. with Double-
      Operation System 27C512-EPROM after switching
   d) Switch off the WA8DED-Hostmode and TNC-Reconfiguration e.g. after
      RESYNC-crash of a Host Mode Terminal Program or of a DIEBOX

with the freely definable COM-Ports, COM1 to COM4 will be employed.


Program Calling and Command Line Parameters
========================================== =

The Call is: TNCINIT (Parameter List)
```

The Parameter List consists of Command Line Parameters, which provides a Parameter-Recognition. The individual appended Command Line Parameters are separated by an empty Character to the Program Call.

F:File	Filename of the Initialisation File	(must be indicated)
C:Port Number	1-4 for the employed COM-Port	(Default: 1)
C:Port,Adr,IRQ	Complete Definition of COMX with Base Address and IRQ	(Issue is optional for COM3 or COM4)
B:Baudrate	Baudrate	(Default: 9600)
W:Word length	Word length 7 or 8 Bit (significant)	(Default: 8)
P:Parity	Parity Odd Even None	(Default: N)
SB:Stopbit	Stopbit 1,2	(Default: 1)
H:Handshake	Handshake No Software Hardware	(Default: K)
S:TNC-SW	Recognition "TAPR","TF"	(Default: TAPR)
E:	Receive echo for Testing	(Default: none)
U:+-Hrs,+-Min	Global Time offset to UTC-Time	(Default: 0,0)

F:File

Filename for an ASCII-File which contains the Commands for the TNC-Reinitialisation and TNCINIT-instructions.

C:Portnumber,C:Portnumber,Base Address,IRQ

The Port to be employed can be selected by the declaration of its Portnumber 1=COM1... 4=COM4. Thereby will be employed the pre-defined Base Address and of the pre-defined IRQ of the issued Port COM1-COM4. For the non normal COM3,4-Cards and the old PCjr of IBM the COMX-Port is fully specifiable in the Form <Portnumber,Base Address,IRQ>.

Portnumber	COMX X=1-4
Base Address	Hexadecimal Port Address in Pascal-HEX-Notation with leading "$"-Character e.g. 338Hex is issued with $338.
IRQ	Interrupt direction of the Port Card.

Example: COM4 with IRQ3, Bass Address 2E8 will be issued with "C:4,$2E8,3".

With PS2-Systems the issue of Base Address in the total IO-Range of 64KB ($0000-$FFFFH) is possible.

B:Baudrate

Baudrate for the Serial Port to the TNC.

W:Word length

Word length on the Serial Port. Sensible Values are 7 or 8.

P:Parity

Parity Check following Character Codes:

"K" = No Parity Check
"G" = Even Parity
"U" = Odd Parity

SB:Stopbits

Number of Stopbits on the Serial Ports 1 or 2.

S:TNC-SW

This recognises "TAPR" or "arbitrary e.g. TF" will be needed by the Program for TNC-SW-specific employment such as Time/DateFormat or Command Line introduction. Internally the Program will be requested that only the clear recognition "TAPR", along with another SW-designation is freely selectable - certainly not "TAPR".

E:ON/OFF

Optional Call for the Screen output of received Echo Data from the TNC which arrived during the Initialisation. Serves for Help with the individual Time protection detection. With E:ON Echo will be switched on and E: or E:OFF switched off.

Instructions for TNCINIT in the Initialisation File
==========

In the Initialisation File stand the Commands for the TNC and the Command Parameters for the Program TNCINIT itself. TNCINIT-Commands occupy one individual File Line per Command. In these Lines no tabulations or Empty Character may be included.
TNCINIT can be configured and controlled with the following Commands in the Initialisation File:

CD:Character Delay in ms

With CD:Character Delay (Character protect time in ms) the protection time between individual Characters will be fixed . This TNCINIT-Command alters the Standard Installation in TNCINIT of 25ms which on this Command Data follows.

LD:Line Delay in ms

With LD:Line Delay the protection Time after the Transfer of a Line to the TNC will be fixed. This contains the average working time of a Command. The TNCINIT-Command alters the Standard Installation from 300ms in TNCINIT.

Employment of LD: und CD:

Both of these Commands should be the first two Lines of each Parameter-File in order to define the protection Times of the Characters and Line Transfer.

D:Delay in ms (immediate executed Protection Time)

With D:Delay after a Data Line, a Protection Time in ms can be inserted. This Command will be executed immediately.

K: Kiss-Reset-Command Transfer

With K: a KISS-Reset-Command dependent on the TNC-SW TAPR or WA8DED/TF can be transferred to the TNC.

A:Sync Character Code

This Command serves for the support of the Baudrate detection with Multimode-Controllers with Autobaud-Routines such as KAM or PK232. With A:42 ("*") TNCINIT sends the Sync Characters continuously, up to the Multi-Mode-Controller agreeing with the PC-Baudrate. The Time Protection will be installed via the Character-Delay Parameter CD:.

BR:Break Time in ms

With BR: the Time in ms will be issued for a Break-Signal on the Serial Port. TNCs with TAPR-SW (or compatible) switch consequently into the Command Mode. This action is safer than e.g. the Sending of CTRL-C.

BY:Byte1,Byte2,Byte3,...,ByteN

With the BYte)Command a List of BYTES in ASCII Code can be transferred, which are not able to be produced with an Editor , e.g. CTRL-C, ESC., CTRL-X etc.

U: Date and Clock Time Setting

With U: Date and Clock Time of the PC-Clock will be transferred to the TNC . The Format is fixed through the TNC-Software Parameter.

U:+-Hrs,+-Min Date and Clock Time with UTC-Offset setting

With the issue of Hours and Minutes for the UTC-Offset the TNC can be set to UTC. The Parameter File Parameter overwrites the Command Line Parameter when this is issued additionally.
E:ON E:OFF Receive Echo switch on/off

With E:ON and E:OFF the Protection Time Parameter detection of the Receive Echo for critical situations can be switched on and off.

L:Control Byte

The L-Command makes it possible to set via a Control Byte and in a normal method for Hardware handshake employment, control RTS and DTR for the selection of a TNC to Port-Multiplexers such as the TNCIO-Card.

The connection between the Control Byte and the Handshake Control is as follows:

Control Byte	DTR	RTS	on= +3V to +30V (mostly +7 to +11V)
0	off	off	off= -3V to -30V (mostly -7 to -11V)
1	off	on	
2	on	off	
3	on	on	

The connection between the Control Byte and the TNC-Number is dependent upon respective Multiplexer Hardware and must be investigated.

CL:ON CL:OFF

TNCINIT normally sends each Line as a Command Line to the TNC, that means that before the sending of a Line the TNC must be switched into the Command Mode.
(BREAK-Signal with TAPR, ESC-Character with WA8DED/The Firmware).
For the new loading of Texts in TNC-Mailboxes e.g. with the PK232 the Command Switching must be deactivated. In such a manner Texts can be transferred after CL:OFF and after the Text Transfer will be reinstalled to the normal Command Transfer with CL:ON. TNCINIT transfers Standard Method each Line as a Command Line.

HR: WA8DED-Hostmode switch off

This Function serves for the purpose of switching back a TNC with WA8DED-Software into Terminal Mode from Host Mode. This Function is very useful when a Host Mode Terminal Program has closed itself after RESYNC-Errors (especially SP) and the TNC has remained in Host Mode. Also useful for DIEBOXES.

: Commentary Lines to the Documentation

It is useful to include Commentary within Initialisation Files. For that purpose the following possibilities are given:

Independent Commentary Lines begin with ": " and then the Commentary Text. No further Character may stand in front of the Empty Character.

Example: Initialisation File for Kiss-Re-initialisation S1.1.6B-SW

For TNCINIT-Commands at least 1 Empty Character or 1 Tab separating
Commentary can be appended. TNCINIT separates a Command after the first TAB
or Empty Character and ignores the rest of the Line.

Example: CD:25   Character Protection Time 25ms for PK232

Data Lines which will be transferred to the TNC, no Commentary may be
appended.

Structure of an Initialisation File

A TNCINIT-Initialisation File bears a likeness to a Batch file with linear
execution. Actually with the TNCINIT-Commands in Connection with the TNC-
Commands is a simple Command Language for the automatic TNC-Configuration.

This determines the following construction of an Initialisation File:

1. Definition of Protection Time for the Transfer
2. Achievement of Commands or Transfer from TNC-Data
3. Insertion of Protection Time in the execution of the Initialisation File

1.-3. are by demand to repeat multiples inside the Initialisation File.

Example two Initialisation Files for TNCINIT

As Examples are better than a 1000 Words here is my Re-initialisation File
for a S1.1.6B-Software with Message filing.

```
------------------------------------------------------------------------------
: Example of an Initialisation File for a S1.1.6B-Software for the return
: switching out of the KISS-Modes and Re-Parametering of the TNCs
: Valid for TNCINIT from Version 8.X

: Standard Protection Times definition
Character Protection Time (Character Delay) 20ms ld:200
Line Protection Time (Line Delay) 200ms

: set the TNC back out of the KISS-Mode
k:               Send KISS-Reset-Command
d:2000           After KISS-Reset 2s (2000ms) wait til TNC-SW runs anew

: Port and Handshake Parameter definition
awlen 8
parity 0
flow on
xflow on
txflow on
trflow on
autolf off

: set AX25 Parameters of the TNC
paclen 236
conmode conv
8bitconv on
ppersist on
persist 64
frac 10
txdelay 20

: Call Signs (User and messages filing PMS) and CTexts set as soon as
: diverse Format Parameters installed.
mycall dl5fbd-1
mypcall dl5fbd
ctext * DL5FBD-1 * Gerd Michael aus Frankfurt-Nied,JO40HC,DOK F43 * "MSG ->
DL5FBD" *
cmsg on
pms on
3rdparty off
dayusa off
users 10
mstamp on
headerline on

: TNC Warm start for the Activation of the Port Parameter of the TAPR-SW
```

```
restart

d:2000           After Restart wait 2s (2000ms)
u:-2             For the conclusion place Date and Time of the TNC with UTC
-------------------------------------------------------------------------------

As a second Example an Initialisation File for switching on KISS in a
PK232 with AUTOBAUD-Routine with the Initialisation.

-------------------------------------------------------------------------------
: KISS-Switch on PK232 with AUTOBAUD

cd:500      0,5 Seconds Time Pause with AUTOBAUD-Synchronisation
a:42        AUTOBAUD
d:2000      Afterwards 2s Pause

cd:25       25ms  Time pause and
ld:200      200ms Time pause for Normal Transfer

KISS ON
RESTART

d:2000      Once again 2s Pause
-------------------------------------------------------------------------------

As a third Example the Initialisation of a PK232 and the 'getting going' of
a Info in a PK232-Maildrop of an Initialisation Example from Thomas DG9AAD.
By Experimentation with this Example please replace the Station's Data of
Thomas with the Individual Data:

-------------------------------------------------------------------------------
e:on        Echo switch on
cd:500      0,5 Seconds Time Pause with AUTOBAUD-Synchronisation
reset
a:42        AUTOBAUD
d:2000      Afterwards 2s Pause
cd:25       25ms  Character Pause and
ld:500      200ms Line Pause for Normal Transfer
3R on
8B on
AXD 10
BT Test von DG9AAD
CB on
CF no xx0xx nocall pk232
CHC on
CHD on
CH 60
CHS 01
CMS on
CONS on
CT Hi! You are connected with Thomas - DG9AAD - in Weferlingen.
MTE No Computer on the PK232MBX - Please H for Help or R 1 for Info.
DA 900321150000
DF none
DW 20
FR 6
HEA on
MA on
MAX 4
MDM on
MDP Title?:/Text issue, (CTRL-Z) or /EX to end
MM on
MSt on
MY DG9AAD
PE 32
PACL 64
REL on
SL 10
TX 20
US 3
mdc
s all
CL:OFF  Command Line Switch on for Mailbox switch off
Info!
Hello,
the Computer will be required for the benefit of other functions - or I am
not here!
You can leave a Message for me here. Help
is given with (H)elp. Leave the Mailbox with (B)ye.
```

To finish yet a small Info about the Station:
==
QTH (LOC)-------> Weferlingen (JO 52 ID)
TRX ------------> Yaesu FT-470 Duoband Hfg.
Computer--------> Schneider Euro-PC (XT komp.)
TNC/Software ---> PK-232MBX + Term V 9.86
Ant ------------> Comet Duoband-GP for 2m/70cm
DOK ------------> H36, Wolfenbuettel
OP's Name-------> Thomas

Phone-DTMF-Code-> 439 via DB0OI [438.675]
==
/ex
CL:ON Switch on Command Line again
e 1 < SYSOP
e 1 B
e 1 Y
b
u:0,0

Default-Parameters and Adaptation

The examples of the Time Pparameters are those that are functional for me
with a TNC2c TF2.1c/TAPR S1.1.6B (CPU: 4.9MHz). With Version 1 of this
Program many OMs must alter the Parameters, these are now installable via
the Command Lines. The Command E: allows the Display of the received Data on
the Screen and eases the finding of a Parameter.

Note: unfortunately it does do to give generally valid Parameters.
      Particularly the CPU_Frequency of the TNCs affects the speed
      enormously. Users with TNCs and 2,45MHz (Landolt) possibly must adapt
      their Parameters. The Reference Rate to the SIO must be adapted to 600
      Hz, otherwise there will be only anger with TAPR 1.1.6/7 and TF2.1X.

Upper or Lower Case is optional for Text Parameters and Parameter
recognition.

Defining of Ports COM3 und COM4
===============================

COM3 and COM4 are Standard with the Parameters of my IOSA-Card

      COM=3 Base Address=338H IRQ=2 (C:3,$338,2)
      COM=4 Base Address=238H IRQ=5 (C:4,$238,5)

pre-defined. Other Base Addresses and IRQs can be defined always with the
expanded C:-Parameter. Anyone who has the desire for Source Code alteration,
can adapt the Parameters in the Unit V24.PAS for his Ports. After this
adaptation the new Parameters are the Default Parameters for COM3 and COM4.

The Data Base Address and IRQ should be taken from the Manual of the Port
Card.

In the case where this Data is not available help yourself by the following:

1. Read out of the next Mailbox the Program COMFIND by me and allow this
   to run with installed COM3/4-Hardware.
   The Program ascertains the Base Address of the COM3/4-Card by a
   Register Contents investigation.

   (Translator's Note: there are other Programs available in UK that does
    the same thing e.g. Checkit, if COMFIND is not available).

2. Remove all Programs that use COM1/2. Then test it with a Terminal
   Program e.g. TERM, PCPLUS or TELIX with installed Base-Address which IRQs
   2-5 will be received by the Characters to and from the TNC. The so
   obtained IRQ is the IRQ of the COM3/4-Ports.

3. The new V24-Port library V5.0 allows the usage of the AT-IRQs 8-15 for
   Hardware Specialists whoh have modified their COM3/4-HW. Also with that
   the support of this Special Port has been accomplished.

It is to be observed, that in no case can two Ports be allowed to access the
same IRQ, because this leads to the destruction of the COM-Ports. This is

valid for COM3 and COM4 which access on the COM3/4-IRQs.

29. PC-DSP/PC-SIM for Windows Order

From: "James R. Kauten, M.D." <kauten@mindspring.com>
Date: Sat, 06 Apr 1996 22:47:09 -0500
To: dsp-93@tapr.org
Cc: mullaneb@mccc.edu, xbrucex@popmail.mcs.net, 101365.1113@compuserve.com,
wd5ivd@tapr.org, hf@tapr.org, k4gvo@america.net, jsanford@infi.net,
kgoodwin@draper.com, johnson@mmsi.com, rbiasiot@nji.com,
lanier.r.a@smtpgty.bwi.wec.com, ylshih@alumni.caltech.edu
Message-ID: <199604070349.WAA07973@borg.mindspring.com>
Rendered body type: text/plain

For those interested in PC-DSP/PC-SIM for Windows:

The process of obtaining quotes and a listing of those interested in the PC-DSP and PC-SIM software packages is progressing. Hopefully a notice will be published in the TAPR psr prior to Dayton. The article has been written.

It is my hope that all can be finalized after Dayton. There are some TAPR/Digital forums at Dayton that may spark further interest, and an increase in the order may produce a better discount. Please be patient as this will take a little time to coordinate.

73, Jim
==========
James R. Kauten, M.D., KO4RQ (kauten@mindspring.com)
==========
Phone: (404) 355-9537 (Fax) (404) 355-9515 (Daytime)
Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
Atlanta, GA, 30305-1955
==========
Atlanta, Home of the 1996 Olympics!!!
==========

30. DSP-93 or AEA 2232?

From: "Bob Smith" <bsmith@msn.com>
Date: Sat, 6 Apr 96 22:16:35 UT
To: amsat-bb@amsat.org, dsp-93@tapr.org
Message-ID: <UPMAIL01.199604070419280450@msn.com>
Rendered body type: text/plain

OK, and greetings. Trying to put together an automated SAT station. Have had the DSP-93 for about 9 months now and trying to get things going. Have the PACCOMM TNC and thought loading PSK and FSK modems would be a lot easier than it seems to be.

Also, at least on my DX cluster @ 9600 - I seem to be getting much better throughput on my MFJ/G3RUH combo then on the DSP-93 using the FSK18 modem. I have the thing tuned for 1Vpp input so I think it is tuned as well as possible. Using an ICOM 820H BTW.

Here's my question(s):
Should I get a DSP2232?
Will the TAPR TNC do a better job of swapping modems and loading OBJs.
How does the 2232 compare to the DSP-93 or MFJ-G3RUH in terms of performance - don't want to shell out a grand and go backwards.

Thanks in advance for any advice or ideas you may have.

73 de N3FTU, Bob

Bob Smith
Desktop and Online Services Strategy Group
mailto:rsmith@internetmci.com
http://www2.fyionline.com/~bsmith
Tel. 770-668-5231

31. DSP-93 or AEA 2232?

From: "Bob Smith" <bsmith@msn.com>
Date: Sun, 7 Apr 96 08:15:26 UT
To: amsat-bb@amsat.org, dsp-93@tapr.org
Message-ID: <UPMAIL01.199604071321510817@msn.com>
Rendered body type: text/plain

OK, and greetings. Trying to put together an automated SAT station. Have had the DSP-93 for about 9 months now and trying to get things going. Have the PACCOMM TNC and thought loading PSK and FSK modems would be a lot easier than

it seems to be.

Also, at least on my DX cluster @ 9600 - I seem to be getting much better throughput on my MFJ/G3RUH combo then on the DSP-93 using the FSK18 modem. I have the thing tuned for 1Vpp input so I think it is tuned as well as possible. Using an ICOM 820H BTW.

Here's my question(s):
Should I get a DSP2232?
Will the TAPR TNC do a better job of swapping modems and loading OBJs.
How does the 2232 compare to the DSP-93 or MFJ-G3RUH in terms of performance - don't want to shell out a grand and go backwards.

Thanks in advance for any advice or ideas you may have.

73 de N3FTU, Bob

Bob Smith
Desktop and Online Services Strategy Group
mailto:rsmith@internetmci.com
http://www2.fyionline.com/~bsmith
Tel. 770-668-5231

32. DSP-93 FSK modems

From: jsboro@intellex.com (Joe S. Borovetz)
Date: Sun, 7 Apr 1996 19:09:19 -0500
To: dsp-93@tapr.org
Message-ID: <199604080009.TAA30607@iswonk.intellex.com>
Rendered body type: text/plain

I have a question concerning the 9600 baud FSK modems that are supplied with the DSP-93.

I too have had mixed results using the UO-22 filters for 9600 baud terrestrial operation.

I have tried several different combinations of radios with the DSP-93 and a TAPR 9600 baud modem/MFJ TNC combo.The TAPR modem and the MFJ combo is superior in every case to the DSP-93.

I stumbled across message from Dave KI6QE to James G3RUH that addressed modem problems with the UO-22 satellite and how to configure the G3RUH modem to deal with these problems. (This msg was found in a file called other.mod that was supplied as part of the radio interface support info for the DSP-93)

According to Miller, UO-22 suffers from poor low frequency response problems, and to compensate for these problems, transmit selection 10 on the G3RUH modem should be selected.

I am assuming that the UO-22 modems for the DSP-93 were designed to compensate for the low freq response problems.

If so, these filters are greatly over compensated for terrestrial use, and this may account for the mixed results that folks have been having when they try to use these filters for 9600 baud terrestrial use.

I wonder if Frank Perkins might have some further input on the characteristics of these filters.

73, de Joe WA5VMS

33. Re: [DSP-93:2130] DSP-93 FSK modems

From: fperkins@onramp.net
Date: Sun, 7 Apr 1996 19:53:14 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199604080053.TAA14407@mailhost.onramp.net>
Rendered body type: text/plain

Hi Joe,

None of the 9600 bps modems I have done use TX compensation. TX compensation does not affect RX performance, but should make uplinks to UO-22 somewhat more robust.

I am not in a location that favors terrestrial 9600 testing; the TPRS (9600 backbone) nodes are some miles from me and use directional antennas pointed in another direction. I get a much stronger signal from the satellites ...

Roy, W0SL has probably done the most formal testing at 9600 bps
terrestial with the DSP-93 modems. Initally, he had poor results
at his station. He found that when he went from TX -> RX, there
was a dc transient on his receive signal that got through the
DSP-93 input filter and messed up the data slicing. He fixed it
by tweaking the input capacitor value down, but I don't remember the
exact details. There is a trade off here, because there are other
issues with UO-22 reception that favor using a large input capacitor.

73 Frank WB5IPM

34. Re: [DSP-93:2130] DSP-93 FSK modems

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sun, 7 Apr 1996 20:16:40 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b00ad8e1879e812@[204.251.33.6]>
Rendered body type: text/plain

>I have a question concerning the 9600 baud FSK modems that are supplied with
>the DSP-93.
>
>I too have had mixed results using the UO-22 filters for 9600 baud
>terrestrial operation.
>
...
>
>I wonder if Frank Perkins might have some further input on the
>characteristics of these filters.
>
>73, de Joe WA5VMS

I too have had mixed results with the "UO-22" modems. I believe Frank
optimized these "ISI" modems for "his" radios. I do not do as well on UO-22
with the ISI modems as I do with others. I do better with the 18 kHz modems
on strong signals and better with the 15 kHz modems on weaker signals.

There is a lot of room left for filter investigation.

Ron W5RKN

also:
rparsons@bga.com

35. Re: [DSP-93:2131] Re: DSP-93 FSK modems

From: "L. J. Shepherd" <ljs@west.net>
Date: Sun, 07 Apr 1996 18:49:55 -0700
To: dsp-93@tapr.org
Message-ID: <199604080249.TAA05012@acme.sb.west.net>
Rendered body type: text/plain

Frank: On a different topic......any update with respect to your HF Modem ?
Thanks.....Jim, K6OYY

At 08:10 PM 4/7/96 -0500, you wrote:
>Hi Joe,
>
>None of the 9600 bps modems I have done use TX compensation. TX
>compensation does not affect RX performance, but should make uplinks
>to UO-22 somewhat more robust.
>
>I am not in a location that favors terrestrial 9600 testing; the
>TPRS (9600 backbone) nodes are some miles from me and use directional
>antennas pointed in another direction. I get a much stronger signal
>from the satellites ...
>
>Roy, W0SL has probably done the most formal testing at 9600 bps
>terrestial with the DSP-93 modems. Initally, he had poor results
>at his station. He found that when he went from TX -> RX, there
>was a dc transient on his receive signal that got through the
>DSP-93 input filter and messed up the data slicing. He fixed it
>by tweaking the input capacitor value down, but I don't remember the
>exact details. There is a trade off here, because there are other
>issues with UO-22 reception that favor using a large input capacitor.
>

>73 Frank WB5IPM
>
>
>
>

36. [DSP-93:2131] Re: DSP-93 FSK modems

From: jsboro@intellex.com (Joe S. Borovetz)
Date: Sun, 7 Apr 1996 23:26:11 -0500
To: dsp-93@tapr.org
Message-ID: <199604080426.XAA00386@iswonk.intellex.com>
Rendered body type: text/plain

Hi Joe,

None of the 9600 bps modems I have done use TX compensation. TX
compensation does not affect RX performance, but should make uplinks
to UO-22 somewhat more robust.

I am not in a location that favors terrestrial 9600 testing; the
TPRS (9600 backbone) nodes are some miles from me and use directional
antennas pointed in another direction. I get a much stronger signal
from the satellites ...

Roy, W0SL has probably done the most formal testing at 9600 bps
terrestial with the DSP-93 modems. Initally, he had poor results
at his station. He found that when he went from TX -> RX, there
was a dc transient on his receive signal that got through the
DSP-93 input filter and messed up the data slicing. He fixed it
by tweaking the input capacitor value down, but I don't remember the
exact details. There is a trade off here, because there are other
issues with UO-22 reception that favor using a large input capacitor.

73 Frank WB5IPM

37. Re: [DSP-93:2131] Re: DSP-93 FSK modems

From: jsboro@intellex.com (Joe S. Borovetz)
Date: Sun, 7 Apr 1996 23:26:05 -0500
To: dsp-93@tapr.org
Message-ID: <199604080426.XAA00383@iswonk.intellex.com>
Rendered body type: text/plain

Hi Frank,

I am not having receive problems, the receive seems to be just fine. I do
experience retries on the transmit side though.

I have played with the transmit interface quite a bit and have been able to
achieve fairly decent performance. I should mention that the path from the
DSP station to the node is about 20 feet. The network node is a Texnet NCP
with a hardware NRZ to NRZI converter that feeds a TAPR 9600 baud modem. In
other words, I am not dealing with the NRZ conversion in the TPRS files.

Before I forget, I should mention that the TPRS filters are a bit marginal
due to the fact that Tom N5EG's filters for the TPRS 9600 baud modem have a
different set of charcteristics than the rest of the world. I found this out
after I spent a ridiculous amount of time trying to use a TPRS modem on NRZI
to connect to any of the RUH or TAPR modems.

Bob WB5AOH visited with Tom and asked him several questions for me. Tom gave
a detailed explanation of the difference in design characteristics, most of
which slips my mind at the present.

The radios that I have been using with the DSP-93 for 9600 baud NRZI have
all been proven in 9600 baud use so I can eliminate the RF side of the
issue. I did find that using DC coupling on the receive side helped the
receive performance.

The on thing that I do notice is the fact that on the terrestrial side, the
DSP modem does not perform as well as the traditonal RUH/TAPR/TPRS modems.
Although I am not on Satellite, I have received favorable reports on use of
the DSP-93 for that mode of operation.

In closing I should mention that I have done all of the usual things such as
checking TXD and various timing parameters.

Over all, the performance is not that bad if one is willing to spend some
time optimizing the radio interface. That part of the issue as we both know,
is sometimes the hardest to deal with .

73, de Joe WA5VMS

>Hi Joe,
>
>None of the 9600 bps modems I have done use TX compensation. TX
>compensation does not affect RX performance, but should make uplinks
>to UO-22 somewhat more robust.
>
>I am not in a location that favors terrestrial 9600 testing; the
>TPRS (9600 backbone) nodes are some miles from me and use directional
>antennas pointed in another direction. I get a much stronger signal
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>Roy, W0SL has probably done the most formal testing at 9600 bps
>terrestial with the DSP-93 modems. Initally, he had poor results
>at his station. He found that when he went from TX -> RX, there
>was a dc transient on his receive signal that got through the
>DSP-93 input filter and messed up the data slicing. He fixed it
>by tweaking the input capacitor value down, but I don't remember the
>exact details. There is a trade off here, because there are other
>issues with UO-22 reception that favor using a large input capacitor.
>
>73 Frank WB5IPM
>
>
>

38. rediredted mail

From: jsboro@intellex.com (Joe S. Borovetz)
Date: Sun, 7 Apr 1996 23:31:18 -0500
To: dsp-93@tapr.org
Message-ID: <199604080431.XAA00480@iswonk.intellex.com>
Rendered body type: text/plain

Sorry Frank, something went nuts here at the house and I ended up losing my
reply to you and sending your msg back. Now I need to se if I can find my
reply to you. It sure was a lot of typing to lose. I do have some comments
on my interface. I will try again in the morning.
73, Joe WA5VMS

39. Re: [DSP-93:2135] Re: DSP-93 FSK modems

From: Roy Welch <rdw@crl.com>
Date: Mon, 8 Apr 1996 06:28:03 -0700 (PDT)
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <Pine.SUN.3.91.960408062438.20871A-100000@crl2.crl.com>
Rendered body type: text/plain

Joe, try changing the 10Mf cap on the input to the DSP93 to a 3Mf and see
if it works then. My Icom had a dc transient on change over from xmit to
rcv that masked the reply packet from the other station. I could never
seem to connect even though I could hear the other station reply. The
3Mf cap made the transient short enough that it was over quickly.

73, Roy -- W0SL

On Sun, 7 Apr 1996, Joe S. Borovetz wrote:

> Hi Frank,
>
> I am not having receive problems, the receive seems to be just fine. I do
> experience retries on the transmit side though.
>
> I have played with the transmit interface quite a bit and have been able to
> achieve fairly decent performance. I should mention that the path from the
> DSP station to the node is about 20 feet. The network node is a Texnet NCP
> with a hardware NRZ to NRZI converter that feeds a TAPR 9600 baud modem. In
> other words, I am not dealing with the NRZ conversion in the TPRS files.
>
> Before I forget, I should mention that the TPRS filters are a bit marginal
> due to the fact that Tom N5EG's filters for the TPRS 9600 baud modem have a
> different set of charcteristics than the rest of the world. I found this out
> after I spent a ridiculous amount of time trying to use a TPRS modem on NRZI
> to connect to any of the RUH or TAPR modems.
>
> Bob WB5AOH visited with Tom and asked him several questions for me. Tom gave
> a detailed explanation of the difference in design characteristics, most of
> which slips my mind at the present.

>
> The radios that I have been using with the DSP-93 for 9600 baud NRZI have
> all been proven in 9600 baud use so I can eliminate the RF side of the
> issue. I did find that using DC coupling on the receive side helped the
> receive performance.
>
> The on thing that I do notice is the fact that on the terrestrial side, the
> DSP modem does not perform as well as the traditonal RUH/TAPR/TPRS modems.
> Although I am not on Satellite, I have received favorable reports on use of
> the DSP-93 for that mode of operation.
>
> In closing I should mention that I have done all of the usual things such as
> checking TXD and various timing parameters.
>
> Over all, the performance is not that bad if one is willing to spend some
> time optimizing the radio interface. That part of the issue as we both know,
> is sometimes the hardest to deal with .
>
> 73, de Joe WA5VMS
>
> >Hi Joe,
> >
> >None of the 9600 bps modems I have done use TX compensation. TX
> >compensation does not affect RX performance, but should make uplinks
> >to UO-22 somewhat more robust.
> >
> >I am not in a location that favors terrestrial 9600 testing; the
> >TPRS (9600 backbone) nodes are some miles from me and use directional
> >antennas pointed in another direction. I get a much stronger signal
> >from the satellites ...
> >
> >Roy, W0SL has probably done the most formal testing at 9600 bps
> >terrestial with the DSP-93 modems. Initally, he had poor results
> >at his station. He found that when he went from TX -> RX, there
> >was a dc transient on his receive signal that got through the
> >DSP-93 input filter and messed up the data slicing. He fixed it
> >by tweaking the input capacitor value down, but I don't remember the
> >exact details. There is a trade off here, because there are other
> >issues with UO-22 reception that favor using a large input capacitor.
> >
> >73 Frank WB5IPM
> >
> >
> >
>
>

40. Re: DSP-93 FSK modems (WA5VMS)

From: morganb@admin.inetport.com (Robert B. Morgan)
Date: Mon, 8 Apr 1996 13:02:18 -0500
To: dsp-93@tapr.org
Message-ID: <199604081802.NAA10556@admin.inetport.com>
Rendered body type: text/plain

According to Joe-

>Hi Frank,
>
>I am not having receive problems, the receive seems to be just fine. I do
>experience retries on the transmit side though.
>
>
>Before I forget, I should mention that the TPRS filters are a bit marginal
>due to the fact that Tom N5EG's filters for the TPRS 9600 baud modem have a
>different set of charcteristics than the rest of the world. I found this out
>after I spent a ridiculous amount of time trying to use a TPRS modem on NRZI
>to connect to any of the RUH or TAPR modems.
>
>Bob WB5AOH visited with Tom and asked him several questions for me. Tom gave
>a detailed explanation of the difference in design characteristics, most of
>which slips my mind at the present.

BOB SAYS:

I did visit with N5EG about this very matter. Maybe if he is listening to
this discussion he can jump in and elaborate, but the gist of what I got
is that he chose the original TexNet modem design to apply half of the
raised cosine compensation to the TX and the other half to the RX.
By half, I mean the square root of raised cosine. The transmit filter also

included the x/sin(x) term. Seems like alpha was around 0.6 to 0.8, but
I don't recall for sure. The design allocated some overall compensation
to the RCA-700 RADIO. What he and I concluded is that the de-facto
standard amateur use FSK scheme was different, and I presume that all of
the compensation was applied at the TX end, but this is an assumption
on my part. I don't recall seeing the specs PUBLISHED anywhere. Joe and
I seem to recall that it was based on FSK satellite modems which were
adopted straight into terrestrial service. Maybe someone could elaborate
on this point. Anyhow we did find that there were drastic differences.
Joe's first observation was that he had to severly mis-tune the carrier
freq of one end to secure any kind of data transmision, and also that the
compensation differences were such that it only optimized one direction
between mismatched modems. Such a scheme would preclude communication in
all directions when a third station showed up (except to digipeat).

Maybe it has been pointed out before, but the TPRS modem design includes
two equalization adjustments on the receiver section of the modem. One of
them is a so-called amplitude adjustment (not a gain control, but adjusts
the damping/overshoot characteristics of the receive filter), and also a
so-called phase adjustment, which is an adjustment to an all-pass filter
which one can trim that modem to a particular phase delay characteristic of
a particular receiver, and is a particularly handy adjustment which can
improve a receive eyepattern and error rate. It is our usual practice
to use a scope to watch eyepatterns and calibrate the modem to the receiver
when setting up one of our (TPRS) 30 to 60 mile terrestrial paths. When we
manage to keep oscillators on freq, they perform well on such paths.
Without the availability of the phase adjustment, we find that some
folks would be inclined (forced?) to yank out part or all of the
receiver filters, and with the exception of the Maxar, it is unnecessary.
The Maxar-80 would benefit from an inexpensive filter substitute, which
Joe has been testing lately. (It is also necessary to REMOVE the Maxar's
de-emphasis network cap, as it LOADS DOWN the detector and spreads delay).

I have been in the slow process of "testing" several different models
of radios for their suitability for use with 9600b FSK since the first of
the year. I have some 15 or so models on a list which I have at various
times gotten access to, and have done maybe 10 or so to date. Most of them
are commercial mobile two way sets, but there is some ham gear on the
list, inluding my own FT-726. All of the gear is at least 10 years old,
since I don't have a Ross Perot R&D bank account. Quite a bit of the
gear does turn out to be suitable, and only a few units (the MAXAR-80
stands out) are too narrow or have too much phase delay spread. But it
should be noted that there is a fair variation in the raw amounts of
both the amplitude rolloff and the
phase delay spread, and the frequencies they occur at, from one model to
the next, so I contend that there needs to be a place for any modem
receiver (whether analog or digital) to have some equalization adjustments,
and a means to view an eyepattern or perform some equivalent procedure.

The information I am producing includes producing a discriminator output
voltage vs freq curve and a sensitivity vs freq curve (shows the filter
attenuation curve) for carrier freqs roughly 10-15 KHz plus/minus center.
Also included are curves of the recovered amplitude and delay for on channel
modulating signals from low freqs to about 10 KHz at 200-300 Hz intervals
at 1 KHz deviation. I intend to hand the material over to the community
someplace (here or elsewhere) when it is complete, and maybe others can
add other radios to the collection. I haven't decidecd on the format
yet, whether raw data tabulated as text files, or some graphics format
displaying the curves. That's still open, but any graphics may be
limited to s/w I have on hand and that doesn't include postscript. Anyhow
it will happen whenever it happens. Any suggestions?

73 de Bob WB5AOH
Austin, Texas

Note NEW address:
morganb@inetport.com

41. Re: [DSP-93:2133] Re: DSP-93 FSK modems

From: fperkins@onramp.net
Date: Mon, 8 Apr 1996 19:50:57 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199604090050.TAA22258@mailhost.onramp.net>
Rendered body type: text/plain

Hi Jim,

I have not heard back from Bob yet on the UART Status Buffer read problem
I am experiencing. I am "hung up" to do any more with the HF modems until

we are able to understand and fix this. Based on what Johan has told me,
I think he sees the same problem.

73 Frank WB5IPM

42. Re: [DSP-93:2135] Re: DSP-93 FSK modems

From: fperkins@onramp.net
Date: Mon, 8 Apr 1996 19:59:32 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199604090059.TAA23633@mailhost.onramp.net>
Rendered body type: text/plain

Hi Joe,

I am very interested in your experience, and have a bunch of
"interactive" questions.

Please send me your phone number and I'll give you a call this
coming weekend. I will also call Tom meanwhile and get an update
on some of the details of TPRS.

73 Frank WB5IPM

43. Re: [DSP-93:2136] rediredted mail

From: fperkins@onramp.net
Date: Mon, 8 Apr 1996 20:00:49 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199604090100.UAA23848@mailhost.onramp.net>
Rendered body type: text/plain

Hi Joe,

OK on the interface info. Also note my earlier e-mail re
a phone call.

73 Frank WB5IPM

44. Re: [DSP-93:2138] Re: DSP-93 FSK modems (WA5VMS)

From: fperkins@onramp.net
Date: Mon, 8 Apr 1996 20:37:48 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199604090137.UAA00272@mailhost.onramp.net>
Rendered body type: text/plain

Hi Bob,

Good to hear from you again. You are correct; the G3RUH "standard" calls
for flat RX amplitude and phase compensation, but includes selectable
pre-comp'ed TX waveforms.

Tom's choice of splitting the raised cosine between TX and RX for TPRS
has theoretical benefit over putting it all at one end. If only the rest
of the amateurs had followed suite ...

I don't think it is possible to run adaptive compensation in the
DSP-93 and take care of the descramble, etc. However, it might be
possible to run one program to adapt the RX coefficients and then
hand them off to the modem program. Maybe this fall after things
settle down at work ...

I will have to go back and look at the current code again. Maybe we can
go back to half-duplex and find enough time to put in TX compensation for
terrestrial. This will likely be a fall project too ...

(You guys in Austin are most welcome to jump in if you feel like it.
Ron is very use to whip'n my ugly code in shape ...)

73 Frank WB5IPM

45. [DSP-93:2127] PC-DSP/PC-SIM for Windows Order -Reply

From: Wessel Du Preez <wpreez@csir.co.za>
Date: Tue, 09 Apr 1996 07:35:15 +0200
To: dsp-93@tapr.org
Message-ID: <s16a1493.071@csir.co.za>
Rendered body type: text/plain

I hope that you will also process foreign orders! Sounds a very good
method so could you please add my name to your list for PC-DSP/PC-SIM.

73
Wessel, ZS6BLY

>>> James R. Kauten, M.D. <kauten@mindspring.com> 7/April/1996
05:58am >>>
For those interested in PC-DSP/PC-SIM for Windows:

The process of obtaining quotes and a listing of those interested in the
PC-DSP and PC-SIM software packages is progressing. Hopefully a
notice will be published in the TAPR psr prior to Dayton. The article has
been written.

 It is my hope that all can be finalized after Dayton. There are some
TAPR/Digital forums at Dayton that may spark further interest, and an
increase in the order may produce a better discount. Please be patient
as this will take a little time to coordinate.

73, Jim
==========
James R. Kauten, M.D., KO4RQ (kauten@mindspring.com)
==========
Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
                                          Atlanta, GA, 30305-1955
==========
Atlanta, Home of the 1996 Olympics!!!
==========

46. Re: [DSP-93:2143] PC-DSP/PC-SIM for Windows Order -Reply

From: LANIER.R.A-@smtpgty.bwi.wec.com (LANIER.R.A-)
Date: Tue, 9 Apr 1996 07:36:08 -0400
To: dsp-93@tapr.org
Message-ID: <16A59370.1858@smtpgty.bwi.wec.com>
Rendered body type: text/plain

To All Concerned:

     I am gathering a list of names of those who would like to participate
     in a bulk order of the PC-DSP/PC-SIM for WIndows software bundle. I am
     coordinating this effort with James Kauten, who is working with DSP
     Solutions for a bulk purchase. If you want your name added to the
     list, PLEASE send me your name so I can put it in a special folder in
     my mailbox. Thanks!

     73s de
     Tony, KE4ATO

_____ Reply Separator _____
Subject: [DSP-93:2143] PC-DSP/PC-SIM for Windows Order -Reply
Author: dsp-93@tapr.org at BALT.SMTP
Date: 4/9/96 1:00 AM

I hope that you will also process foreign orders! Sounds a very good
method so could you please add my name to your list for PC-DSP/PC-SIM.

73
Wessel, ZS6BLY

>>> James R. Kauten, M.D. <kauten@mindspring.com> 7/April/1996
05:58am >>>
For those interested in PC-DSP/PC-SIM for Windows:

The process of obtaining quotes and a listing of those interested in the
PC-DSP and PC-SIM software packages is progressing. Hopefully a
notice will be published in the TAPR psr prior to Dayton. The article has
been written.

 It is my hope that all can be finalized after Dayton. There are some
TAPR/Digital forums at Dayton that may spark further interest, and an
increase in the order may produce a better discount. Please be patient
as this will take a little time to coordinate.

73, Jim
==========
James R. Kauten, M.D., KO4RQ (kauten@mindspring.com)
==========

```
Phone:      (404) 355-9537 (Fax)            (404) 355-9515 (Daytime)
Address:  James R. Kauten, M.D.,  95 Collier Road,  Suite 2055
                                              Atlanta, GA,  30305-1955
=====================================================
Atlanta,  Home of the 1996 Olympics!!!
=====================================================
```

47. TPRS 9600 FSK modems

From: mcdermot@rdxsunhost.aud.alcatel.com (Tom Mcdermott)
Date: Tue, 9 Apr 96 10:11:03 CDT
To: dsp-93@tapr.org
Message-ID: <9604091511.AA04186@eagle.aud.alcatel.com>
Rendered body type: text/plain

Here is a diatribe on what I can still remember about the TPRS modem design. It has been a long time ....

Design Philosophy of the TPRS (TexNet) 9600 baud modem filters.
Tom McDermott, N5EG
April 9, 1996

The TPRS modem was designed in 1985, and is used in the Texas packet network for 9600 baud FSK links between the TexNet Node Control Processors (NCPs, or 'nodes'). It is a very low cost, simple modem based on passive filters and was designed to be roughly compatible with the K9NG design (circa 1985). The design has not been changed since the original release in 1986.

The filters on the TPRS modem are based on a raised-cosine filter response of alpha = 0.6. The filter response has been split between the transmitter and receiver sections equally, that is the transmitter has a square-root of raised-cosine filter, and the receiver has the same square-root of raised-cosine filter. In addition, the transmitter also contains x/sin(x) compensation. The transmitter x/sin(x) compensation and filter were combined into a dual-stage active filter using passive components - 5% NPO capacitors, and 1% resistors, and TL074 op-amps.

Choosing a filter resonse with an alpha less than 1.0 complicates the clock recovery somewhat if a digital state machine is utilized, due to the jitter of the signal crossing created. The filter response was partitioned between the transmitter and receiver because: 1) it set a fairly narrow transmitter bandwidth, and 2) it limited the noise bandwidth of the receiver to an acceptable amount. Placing the x/sin(x) compensation at the transmitter improves the noise bandwidth at the receiver, and it can be shown to be optimum from a Bit Error Rate vs. Receive Signal Level point of view.

The receiver filter is implemented as a dual-stage active filter. But in addition, the damping of one of the filter sections is adjustable so that problems elsewhere in the frequency response of the receiver can be accomodated somewhat by the adjustment of the damping. The damping control allows peaking the gain of the receive filter at about 3 khz, and seems to work well for just a single-control.

Additionally, the receive section contains an all-pass filter based on an active filter. This filter is adjustable, and contains a single-pole phase-response adjustment which changes the phase delay curve. This allows for adding more group delay only to the lower-frequencies, and less to the higher-frequencies, which can be used to cancel the tendency of I.F. crystal filters in radios to distort the signal with excessive group delay at the filter corner frequencies. On some IF filters, the improvement is dramatic, on others it is not noticable.

The deviation of the modem is set for 3 kHz. This means that the channel center frequency is Fc, the space is 3 kHz. lower than the channel center and the mark is 3 kHz. higher than the channel center frequency. This results in a low modulation-index FSK signal for 9600 baud data. The linearity of FSK demodulation process is better for lower modulation indexes, and this allowes for baseband group-delay compensation of the IF filter. Non-linear effects at larger modulation indexes cause non-correctable-at-baseband effects on FSK signals. FSK is, in general, a non-linear modulation as compared to ASK and PSK which are fully linear to baseband.

One of the important design principles in the modem is that the receiver and transmitter are fully DC-coupled. It can be shown that lack of low-frequency response in the filter chain has an extremely detrimental effect on the bit error rate, seemingly out of all proportion to the frequencies involved. The effect is related to a statistical phenominon, and I won't go into the gory details here, but it is a very real problem that many people seem simply to ignore. If you are interested, I would refer

you to [1].

On the air performance tests in 1986 demonstrated that the modem worked very well, and the performance exceeded substantially any other modem available to the TexNet team at that time. In addition, it's cost was extremely low, and met the targets. It also met the stringent reliability and power requirements for the node. Discounting lightning events, the current MTBF of the entire NCP board is 3.9 million hours. The modem was tested over the temperature range -10C to +60C with little effect on it's performance (the same cannot be said about the radiio itself).

Integration of the modem into the radios, however is somewhat more difficult that average. It requires direct FSK connection to the transmit oscillator, and direct connect to the discriminator. The largest problem that we have is the temperature stability of the radios themselves. Ovenized-oscillators have been the most practical (and low cost) means of achieving adequate frequency stability and I would highly recommend this be used.

Improvements to the modem are certainly possible. The simple filters used have some error against the perfect raised-cosine curve. The clock recovery could be improved. The slicer circuit is very simple, and a no-scar plug-in modification has been released, and is under test by some people with particularly difficult paths.

---
[1] Tom McDermott, N5EG, "Wireless Digital Communications: Design and Theory", to be published by TAPR, 1996.


```
------------------------------------------------+-----------------------------
 Tom McDermott                                  | "All opinions expressed
 Alcatel Network Systems, Inc.                  | are my own, and do not
 mcdermot@aud.alcatel.com                       | represent those of Alcatel
   [ ICC'96 Technical Program Secretary ]       | Network Systems, Inc."
   [   June 23-27, 1996, Dallas, Tx.    ]       |
------------------------------------------------+-----------------------------
```


48. Progress PC-DSP/PC-SIM for Windows

From: "James R. Kauten, M.D." <kauten@mindspring.com>

Date: Tue, 09 Apr 1996 15:37:02 -0400
To: dsp-93@tapr.org
Cc: mullaneb@mccc.edu, xbrucex@popmail.mcs.net, 101365.1113@compuserve.com,
wd5ivd@tapr.org, hfsig@tapr.org, k4gvo@america.net, jsanford@infi.net,
kgoodwin@draper.com, johnson@mmsi.com, rbiasiot@nji.com,
lanier.r.a@smtpgty.bwi.wec.com, twatson@magic1.org, wpreez@csir.co.za,
ylshih@alumni.caltech.edu
Message-ID: <199604091936.PAA04059@borg.mindspring.com>
Rendered body type: text/plain

Have just received a quote from DSP Solutions as listed below. Presently we have approximately 12-15 people interested and hopefully this will increase once the notice is published in the TAPR PSR and after Dayton. I will keep you informed as to the progress. Greg Jones could perhaps look at these prices and determine whether it is feasible for these to be purchased thru TAPR. I would be willing to write them a check for my copy of the programs if it would keep processing cost down:

>Dear Dr. Kauten:
>
>Thank you again for your interest in DSP Solutions products. As I have
>indicated in my previous message, the single-copy price of the Windows
>bundle is $249. We can offer the following discounts for bulk purchases:
>
>Quantity   Discount   Price per copy
>
> 6-10   10% $ 224.10
>11-20   15% $ 211.65
>21-40   20% $ 199.20
>41-60   25% $ 186.75
>61 or more   30% $ 174.30
>
>We have not yet determined the pricing for developers' editions. PC-SIM
>developers' edition will be released shortly, and the PC-DSP developers'
>edition will be released about six weeks after that. The pricing will be
>determined at the time the software is released. We will offer special
>upgrade pricing for owners of standard editions. We can also offer
>discounts for bulk purchases similar to the above discount structure.
>
>Please let me know if I may provide more information.
>

>Sincerely,
>
>Oktay Alkin, Ph.D.
>DSP Solutions
>oalkin@dspsolutions.com

73, Tnx fer ur patience.

Jim, KO4RQ
==
James R. Kauten, M.D., KO4RQ (kauten@mindspring.com)
==
Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
                                                Atlanta, GA, 30305-1955
==
Atlanta, Home of the 1996 Olympics!!!
==

49. DSP Text

From: LANIER.R.A-@smtpgty.bwi.wec.com (LANIER.R.A-)
Date: Tue, 9 Apr 1996 15:03:03 -0400
To: dsp-93@tapr.org
Message-ID: <16AC1C00.1858@smtpgty.bwi.wec.com>
Rendered body type: text/plain

I have a proposition for a another text. I have looked at the DSP text
     "Introduction to Signal Processing" by Sophocles Orfandis. It seems to
     be a good book. It has 100 C and Matlab functions for filters and
     other DSP functions. There are also 350 problems, 75 of which are
     computer-based experiments. One of the nice features of the book is
     the discussion of circular buffers, a topic not usually mentioned in
     the literature (according to the author).

     I realize some people are using the previously-discussed text;
     however, this one will not require additional software, assuming you
     have a C compiler. Using Matlab would enable you to do graphing of
     functions and to print out the results.

     A more thorough discussing of this text is at the URL:

        http://www-ece.rutgers.edu/gopher/ftp/pub/sjo/intro2sp.html

     Let me know what you think. I am planning on buying the book in the
     near future.

     73s de
     Tony, KE4ATO

50. Re: [DSP-93:2144] Re: PC-DSP/PC-SIM for Windows Order -Reply

From: Tom Watson <twatson@magic1.org>
Date: Mon, 08 Apr 1996 17:34:24 -0500
To: dsp-93@tapr.org
Message-ID: <31699470.4742@magic1.org>
Rendered body type: text/plain

LANIER.R.A- wrote:
>
>   To All Concerned:
>
>   I am gathering a list of names of those who would like to participate
>   in a bulk order of the PC-DSP/PC-SIM for WIndows software bundle. I am
>   coordinating this effort with James Kauten, who is working with DSP
>   Solutions for a bulk purchase. If you want your name added to the
>   list, PLEASE send me your name so I can put it in a special folder in
>   my mailbox. Thanks!
>
>   73s de
>   Tony, KE4ATO
>
> _____________________________ Reply Separator _____________________________
> Subject: [DSP-93:2143] PC-DSP/PC-SIM for Windows Order -Reply
> Author: dsp-93@tapr.org at BALT.SMTP
> Date: 4/9/96 1:00 AM
>
> I hope that you will also process foreign orders! Sounds a very good
> method so could you please add my name to your list for PC-DSP/PC-SIM.
>
> 73

> Wessel, ZS6BLY
>
> >>> James R. Kauten, M.D. <kauten@mindspring.com> 7/April/1996
> 05:58am >>>
> For those interested in PC-DSP/PC-SIM for Windows:
>
> The process of obtaining quotes and a listing of those interested in the
> PC-DSP and PC-SIM software packages is progressing. Hopefully a
> notice will be published in the TAPR psr prior to Dayton. The article has
> been written.
>
> It is my hope that all can be finalized after Dayton. There are some
> TAPR/Digital forums at Dayton that may spark further interest, and an
> increase in the order may produce a better discount. Please be patient
> as this will take a little time to coordinate.
>
> 73, Jim
> ==
> James R. Kauten, M.D., KO4RQ (kauten@mindspring.com)
> ==
> Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
> Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
>   Atlanta, GA, 30305-1955
> ==
> Atlanta, Home of the 1996 Olympics!!!
> ==
>
>
> ADD MY NAME TO THE PC-DSP ORDER

TOM WATSON, WA0DJP
18707 GATEWAY DR
INDEPENDENC, MO 64057-1630

51. Re: [DSP-93:2113] PC-DSP Software for Windows (Purchase Plan)

From: MS16948@LTU.EDU
Date: Tue, 09 Apr 1996 19:17:31 -0500 (EST)
To: dsp-93@tapr.org
Message-ID: <01I3CKBLBJXU94ELV9@LTU.EDU>
Rendered body type: text/plain

I would be interested! Sounds like a great way to learn more about DSP
and promote digital communications knowledge in the Amature Radio
community. I will sign up at Dayton if possible.
  Murray, KE8UM

52. PC-DSP/PC-SIM

From: deh6@po.CWRU.Edu (Donald E. Haselwood)
Date: Tue, 9 Apr 1996 20:57:45 -0400
To: DSP-93@tapr.org
Message-ID: <199604100057.UAA12062@kanga.INS.CWRU.Edu>
Rendered body type: text/plain

I just started slugging through the PC-DSP book (DOS ver). So
far it looks great, which leads to--Should I toss my hat in the
ring for the PC/DSP & PC/SIM purchase. Maybe the DOS ver is
sufficient.

Looking back through the thread on this, two issues come up.

1.   What is the plot feature that is missing on the DOS version,
but present on the Windows/Win95 version?

The sequences generated on the DOS version can be plotted (just
hit F2).

2.   What does PC/SIM do? The title suggests it simulates; I
would guess that one might be able to simulate some hairbrained
idea (as certainly well considered drivel) before coding it into
the DSP-93.

A few words as to what the bundle will do beyond the $42 DOS ver
would be helpful for those of us on-the-fence, with limited
funding, etc.

Regards,
Don, K4JPJ

53. Downloading PC-DSP & PC-SIM

From: deh6@po.CWRU.Edu (Donald E. Haselwood)
Date: Wed, 10 Apr 1996 10:24:51 -0400
To: DSP-93@tapr.org
Message-ID: <199604101424.KAA24243@kanga.INS.CWRU.Edu>
Rendered body type: text/plain

Ken,

>For PC-SIM, suggest you check out the DSP Solutions WWW, where
>you can download a demo version of the program
>(http://www.dspsolutions.com).

Thanks for the response. I cannot access www sites with the way
I get on Internet. I tried ftp'ing to dspsolutions.com but I
couldn't find anything that looked like the demo's. Do you know
of another way to get at the demos? (Maybe they could be loaded
on the tapr system?]

Regards,
Don, K4JPJ

---

54. Re: [DSP-93:2148] Re: PC-DSP/PC-SIM for Windows Order -Reply

From: Carol Byers <crlbyers@garlic.com>
Date: Wed, 10 Apr 1996 09:01:28 -0700
To: dsp-93@tapr.org
Message-ID: <316BDB58.5A8C@garlic.com>
Rendered body type: text/plain

Add my name to the PC-DSP Order

Carol Byers, W9HGI
832 Ryan CT
Gilroy, CA 95020

---

55. Re: [DSP-93:2151] Downloading PC-DSP & PC-SIM

From: Ralph Ward <rw@txcc.net>
Date: Wed, 10 Apr 1996 20:01:24 -0500
To: dsp-93@tapr.org
Message-ID: <316C59E4.3BBA@txcc.net>
Rendered body type: text/plain

they seem to be simtel mirrors, the software is none functional

ftp://ftp.switch.ch/mirror/simtel/math/dspdem12.zip

good luck

Donald E. Haselwood wrote:
>
> Ken,
>
> >For PC-SIM, suggest you check out the DSP Solutions WWW, where
> >you can download a demo version of the program
> >(http://www.dspsolutions.com).
>
> Thanks for the response. I cannot access www sites with the way
> I get on Internet. I tried ftp'ing to dspsolutions.com but I
> couldn't find anything that looked like the demo's. Do you know
> of another way to get at the demos? (Maybe they could be loaded
> on the tapr system?]
>
> Regards,
> Don, K4JPJ

---

56. RE: [DSP-93:2137] Re: DSP-93 FSK modems

From: "Bob Smith" <bsmith@msn.com>
Date: Wed, 10 Apr 96 15:19:03 UT
To: dsp-93@tapr.org
Message-ID: <UPMAIL01.19960411153480935@msn.com>
Rendered body type: text/plain

Thanks for this Roy - is there some way to measure what works - I have a scope
but not quite sure what I should be looking for. I've done the capacitor
thing but have no way to quantify the results. Thanks.

From: dsp-93@tapr.org on behalf of Roy Welch
Sent: Monday, April 08, 1996 2:59 PM
To: dsp-93@tapr.org
Subject: [DSP-93:2137] Re: DSP-93 FSK modems

Joe, try changing the 10Mf cap on the input to the DSP93 to a 3Mf and see
if it works then. My Icom had a dc transient on change over from xmit to
rcv that masked the reply packet from the other station. I could never
seem to connect even though I could hear the other station reply. The
3Mf cap made the transient short enough that it was over quickly.

73, Roy -- W0SL

Bob Smith
Desktop and Online Services Strategy Group
mailto:rsmith@internetmci.com
http://www2.fyionline.com/~bsmith
Tel. 770-668-5231

57. Re: [DSP-93:2154] Re: DSP-93 FSK modems

From: Roy Welch <rdw@crl.com>
Date: Thu, 11 Apr 1996 06:36:59 -0700 (PDT)
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <Pine.SUN.3.91.960411062523.21872A-100000@crl5.crl.com>
Rendered body type: text/plain

The way I measured what works was to keep reducing the 10Mf down in value
until I could connect successfully. You can see on the scope that when
you switch from transmit to receive there is a positive shift in the
pattern such that the reply data doesn't swing across the scope zero
reference. Therefore nothing is received for a fraction of a second
until the pattern has restablized on the zero line. By then it's too
late to receive the reply to your connect request. The symptoms are that
you can copy the data others are sending but never seem to be able to
connect to any of them.

The IC970 has the exact same circuit as the IC275/IC475 in the
discriminator but the IC970 doesn't exhibit this transient. It may have
a better power supply stablization. Both radios have a residual +3-4
volts on pin 9 of the discriminator chip. It is not this voltage causing
the problem, but the positive pulse on top of it at the switch over time.
Using the lower value capacitor shortens the transient time.

73, Roy

On Thu, 11 Apr 1996, Bob Smith wrote:

> Thanks for this Roy - is there some way to measure what works - I have a scope
> but not quite sure what I should be looking for. I've done the capacitor
> thing but have no way to quantify the results. Thanks.
>
> ----------
> From: dsp-93@tapr.org on behalf of Roy Welch
> Sent: Monday, April 08, 1996 2:59 PM
> To: dsp-93@tapr.org
> Subject: [DSP-93:2137] Re: DSP-93 FSK modems
>
> Joe, try changing the 10Mf cap on the input to the DSP93 to a 3Mf and see
> if it works then. My Icom had a dc transient on change over from xmit to
> rcv that masked the reply packet from the other station. I could never
> seem to connect even though I could hear the other station reply. The
> 3Mf cap made the transient short enough that it was over quickly.
>
> 73, Roy -- W0SL
>
>
> ---
> Bob Smith
> Desktop and Online Services Strategy Group
> mailto:rsmith@internetmci.com
> http://www2.fyionline.com/~bsmith
> Tel. 770-668-5231
>
>

58. Re: [DSP-93:2155] Re: DSP-93 FSK modems

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Thu, 11 Apr 1996 09:50:08 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b00ad92cc114a3a@[204.251.33.8]>
Rendered body type: text/plain

Roy,

>The IC970 has the exact same circuit as the IC275/IC475 in the
>discriminator but the IC970 doesn't exhibit this transient. It may have
>a better power supply stablization. Both radios have a residual +3-4
>volts on pin 9 of the discriminator chip. It is not this voltage causing
>the problem, but the positive pulse on top of it at the switch over time.
>Using the lower value capacitor shortens the transient time.

Are you sure the 970 does not have the problem? It also has a voltage shift
when working simplex (terrestrial). Don't have terrestrial 9600 here to
test (and my 970 just lost its FM audio).

Ron W5RKN

also:
rparsons@bga.com

59. Re: [DSP-93:2156] Re: DSP-93 FSK modems

From: Roy Welch <rdw@crl.com>
Date: Thu, 11 Apr 1996 11:14:01 -0700 (PDT)
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <Pine.SUN.3.91.960411111158.27241A-100000@crl3.crl.com>
Rendered body type: text/plain

Ron, I guess I was mistaken about the IC-970. Somehow I had the
recollection that you were not bothered with the problem. If you don't
work terresterial simplex then it wasn't you. At this point then, I
would have to say the IC-970 may have the same problem. I don't know for
sure.

73, Roy

On Thu, 11 Apr 1996, Ronald G. Parsons wrote:

> Roy,
>
> >The IC970 has the exact same circuit as the IC275/IC475 in the
> >discriminator but the IC970 doesn't exhibit this transient. It may have
> >a better power supply stablization. Both radios have a residual +3-4
> >volts on pin 9 of the discriminator chip. It is not this voltage causing
> >the problem, but the positive pulse on top of it at the switch over time.
> >Using the lower value capacitor shortens the transient time.
>
> Are you sure the 970 does not have the problem? It also has a voltage shift
> when working simplex (terrestrial). Don't have terrestrial 9600 here to
> test (and my 970 just lost its FM audio).
>
>
> Ron W5RKN
>
> also:
> rparsons@bga.com
>
>
>

60. Re: [DSP-93:2157] Re: DSP-93 FSK modems

From: ssalek@h-e.com
Date: Thu, 11 Apr 96 21:01:12 PDT
To: dsp-93@tapr.org
Message-ID: <0000034C.sm@h-e.com>
Rendered body type: text/plain

Hi Roy, Ron, and others with Icom radios--

I have an IC-820H and I think that it also suffers from the terrestrial T/R
offset problem -- I can decode almost everybody but I can't connect to them with
my DSP93/DRSI DPK2 TNC (a direct TNC-2 clone) combination. I can see the reply
coming back, but the connect never happens. My Kantronics KPC9612 TNC and

IC281H radio combination, while not perfect, does work. I haven't yet tried the
KPC9612 with the 820H, but I understand from others that that combo will work
pretty well. I'll try playing with the coupling capacitor to see if it works
for the DSP93.

On a related note, I have one of the TAPR deviation meters (built into the
originally recommended Radio Shack scanner) and I always use it to set up radio
deviation; its accuracy seems good when I compare the demodulated deviation of
my radios to a nearby 9600-baud terrestrial node using an oscilloscope. So I
don't think that I have a deviation-setting problem.

73,

Stan Salek
KD6CVL

61. Re: [DSP-93:2128] DSP-93 or AEA 2232?

From: Fermax.esp@vlc.servicom.es
Date: Fri, 12 Apr 1996 07:55:17 +0200
To: dsp-93@tapr.org
Message-ID: <199604120555.HAA10127@ns.mad.servicom.es>
Rendered body type: text/plain

Hello Bob,

I have read today your question and I think I could be of a little help.
I've also the DSP-93 but with a simpler TNC, a TNC-2 spanish clone. Well,
the obvious 'problem' is the need to use two serial ports, one for the DSP
and other for the TNC. As it is not usual to use both at time, I use (with
success) ports COM1 and COM3, with shared IRQ 4. I use also an external
(self-design) switcher in order to switch TNC clock (1200 or 9600 bps) and
transceiver data (1200 PSK or 9600 FSK) (by the way, I have an FT-736R). I
use only one port for both 1200 and 9600 satellites (so I have one left for
future HF use), and currently I'm active on AO-16, LO-19, UO-22, KO-23 and
KO-25, with efficiencies ranging 70% for PSK and 85% for FSK (these are
averages and I'm using only one antenna for downloading without amplifier).
With this system, I have always up to date directories. I have also a G3RUH
(original!) 9600 FSK modem, and I got same 9600 FSK results. So I think
that, with little fine-setting, you can get it working fine for both kind os
'birds'.

Please, if you want any other info about this matter, please, tell me!.

Regards.

73's JOSE - EB5AGV@AMSAT.ORG

At 22:37 6/04/96 -0600, you wrote:
>OK, and greetings. Trying to put together an automated SAT station. Have had
>the DSP-93 for about 9 months now and trying to get things going. Have the
>PACCOMM TNC and thought loading PSK and FSK modems would be a lot easier than
>it seems to be.
>
>Also, at least on my DX cluster @ 9600 - I seem to be getting much better
>throughput on my MFJ/G3RUH combo then on the DSP-93 using the FSK18 modem. I
>have the thing tuned for 1Vpp input so I think it is tuned as well as
>possible. Using an ICOM 820H BTW.
>
>Here's my question(s):
>Should I get a DSP2232?
>Will the TAPR TNC do a better job of swapping modems and loading OBJs.
>How does the 2232 compare to the DSP-93 or MFJ-G3RUH in terms of performance -
>don't want to shell out a grand and go backwards.
>
>Thanks in advance for any advice or ideas you may have.
>
>73 de N3FTU, Bob
>
>--
>Bob Smith
>Desktop and Online Services Strategy Group
>mailto:rsmith@internetmci.com
>http://www2.fyionline.com/~bsmith
>Tel. 770-668-5231

62. Re: [DSP-93:2159] Re: DSP-93 or AEA 2232?

From: Gunnar Molnes <molnes@telepost.no>
Date: Fri, 12 Apr 1996 13:19:19 +0100

To: dsp-93@tapr.org
Message-ID: <199604121118.24306.telepost.no@telepost.no>
Rendered body type: text/plain

Hi there!
I'm a beginner in this game of digital sats.
I have a dsp-2232 on loan to test out with my rig. (ts-790)
So far I've been able to copy ao-16 ko-23/25 and uo-22.
Changing the modems on the dsp-2232 is easy using WISP.
Haven't tried tx on the sats , because I,ve not started to PC controll
the rig yet. Have tried connecting terrestrial stations on 9k6, but soo far
I've been able to copy them, but not connect to them!!??
Maybee this is some of the same problem others have experiensed??
Anybody have any suggestions??
73 de Gunnar Molnes LA8ZY
molnes@telepost.no

At 01:59 12.04.96 -0500, you wrote:
>Hello Bob,
>
>I have read today your question and I think I could be of a little help.
>I've also the DSP-93 but with a simpler TNC, a TNC-2 spanish clone. Well,
>the obvious 'problem' is the need to use two serial ports, one for the DSP
>and other for the TNC. As it is not usual to use both at time, I use (with
>success) ports COM1 and COM3, with shared IRQ 4. I use also an external
>(self-design) switcher in order to switch TNC clock (1200 or 9600 bps) and
>transceiver data (1200 PSK or 9600 FSK) (by the way, I have an FT-736R). I
>use only one port for both 1200 and 9600 satellites (so I have one left for
>future HF use), and currently I'm active on AO-16, LO-19, UO-22, KO-23 and
>KO-25, with efficiencies ranging 70% for PSK and 85% for FSK (these are
>averages and I'm using only one antenna for downloading without amplifier).
>With this system, I have always up to date directories. I have also a G3RUH
>(original!) 9600 FSK modem, and I got same 9600 FSK results. So I think
>that, with little fine-setting, you can get it working fine for both kind os
>'birds'.
>
>Please, if you want any other info about this matter, please, tell me!.
>
>Regards.
>
>73's JOSE - EB5AGV@AMSAT.ORG
>
>At 22:37 6/04/96 -0600, you wrote:
>>OK, and greetings. Trying to put together an automated SAT station. Have
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>>the DSP-93 for about 9 months now and trying to get things going. Have the
>>PACCOMM TNC and thought loading PSK and FSK modems would be a lot easier than
>>it seems to be.
>>
>>Also, at least on my DX cluster @ 9600 - I seem to be getting much better
>>throughput on my MFJ/G3RUH combo then on the DSP-93 using the FSK18 modem. I
>>have the thing tuned for 1Vpp input so I think it is tuned as well as
>>possible. Using an ICOM 820H BTW.
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>>Here's my question(s):
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>>How does the 2232 compare to the DSP-93 or MFJ-G3RUH in terms of
performance -
>>don't want to shell out a grand and go backwards.
>>
>>Thanks in advance for any advice or ideas you may have.
>>
>>73 de N3FTU, Bob
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>>--
>>Bob Smith
>>Desktop and Online Services Strategy Group
>>mailto:rsmith@internetmci.com
>>http://www2.fyionline.com/~bsmith
>>Tel. 770-668-5231
>
>
>
##
Gunnar Molnes, Dentist
Akersgt. 41
N-0158 Oslo
Tel. +47 22 41 29 16

Internett: molnes@telepost.no & http://home.sol.no/molnes
Packet radio: LA8ZY@LA4O.OSL.A.NOR.EU
##

63. Re: [DSP-93:2159] Re: DSP-93 or AEA 2232?

From: David James <daveb@buffnet.net>
Date: Sat, 13 Apr 1996 16:52:04 GMT
To: dsp-93@tapr.org
Message-ID: <9604131703.aa14821@buffnet1.buffnet.net>
Rendered body type: text/plain

Greetings,

I stumbled upon you post to this reflector and was very pleased to see that your
setup is very similar to what I am starting to do. My setup is as follows

  FT-736R
  DSP-93 W/MFJ1270B TNC
  WISP
  Mode B class Antennas 2x13B2s dwnlnk, 1xKO22 uplnk.

I am just starting out on the digital birds. I would be very greatful for your
input about getting decent results.

So far I have been able to copy LO-19 using a standard comm program. Not good
with WISP yet.

  Q) My computers clock is set @ UTC. WISP keeps calculating an offset of 4
hours
     even though I set TZ=UTC in autoexec. What am I doing wrong ?

I am using NOVA for traking. It has the capability of interfacing with the
CAT port
of the 736R.

  Q) What are you using for controlling the rig (doppler etc)? I would like to
     eventually have it run unattended. Can the DSP-93 correct for doppler with
     the 9600 baud as it does for the PSK ones ?

The mode B antennas seem to be too directional for these LEO birds.

  Q) If I wanted to go to a non steerable system for digisats which would
you choose ?

Any advice would be greatly appreciated.

daveb

>
>I have read today your question and I think I could be of a little help.
>I've also the DSP-93 but with a simpler TNC, a TNC-2 spanish clone. Well,
>the obvious 'problem' is the need to use two serial ports, one for the DSP
>and other for the TNC. As it is not usual to use both at time, I use (with
>success) ports COM1 and COM3, with shared IRQ 4. I use also an external
>(self-design) switcher in order to switch TNC clock (1200 or 9600 bps) and
>transceiver data (1200 PSK or 9600 FSK) (by the way, I have an FT-736R). I
>use only one port for both 1200 and 9600 satellites (so I have one left for
>future HF use), and currently I'm active on AO-16, LO-19, UO-22, KO-23 and
>KO-25, with efficiencies ranging 70% for PSK and 85% for FSK (these are
>averages and I'm using only one antenna for downloading without amplifier).
>With this system, I have always up to date directories. I have also a G3RUH
>(original!) 9600 FSK modem, and I got same 9600 FSK results. So I think
>that, with little fine-setting, you can get it working fine for both kind os
>'birds'.
>
>Please, if you want any other info about this matter, please, tell me!.
>
>Regards.
>
>73's JOSE - EB5AGV@AMSAT.ORG
>
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>>OK, and greetings. Trying to put together an automated SAT station. Have
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>>the DSP-93 for about 9 months now and trying to get things going. Have the

>>PACCOMM TNC and thought loading PSK and FSK modems would be a lot easier than
>>it seems to be.
>>
>>Also, at least on my DX cluster @ 9600 - I seem to be getting much better
>>throughput on my MFJ/G3RUH combo then on the DSP-93 using the FSK18 modem. I
>>have the thing tuned for 1Vpp input so I think it is tuned as well as
>>possible. Using an ICOM 820H BTW.
>>
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>>Should I get a DSP2232?
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>>How does the 2232 compare to the DSP-93 or MFJ-G3RUH in terms of
performance -
>>don't want to shell out a grand and go backwards.
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>>Thanks in advance for any advice or ideas you may have.
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>>73 de N3FTU, Bob
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>>Bob Smith
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>>mailto:rsmith@internetmci.com
>>http://www2.fyionline.com/~bsmith
>>Tel. 770-668-5231
>
>

64. Re: [DSP-93:2159] Re: DSP-93 or AEA 2232?

From: David James <daveb@buffnet.net>
Date: Fri, 12 Apr 1996 17:33:12 GMT
To: dsp-93@tapr.org
Message-ID: <9604121744.aa07483@buffnet1.buffnet.net>
Rendered body type: text/plain

Greetings,

I stumbled upon you post to this reflector and was very pleased to see that your
setup is very similar to what I am starting to do. My setup is as follows

  FT-736R
  DSP-93 W/MFJ1270B TNC
  WISP
  Mode B class Antennas 2x13B2s dwnlnk, 1xKO22 uplnk.

I am just starting out on the digital birds. I would be very greatful for your
input about getting decent results.

So far I have been able to copy LO-19 using a standard comm program. Not good
with WISP yet.

  Q) My computers clock is set @ UTC. WISP keeps calculating an offset of 4
hours
     even though I set TZ=UTC in autoexec. What am I doing wrong ?

I am using NOVA for traking. It has the capability of interfacing with the
CAT port
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  Q) What are you using for controlling the rig (doppler etc)? I would like to
     eventually have it run unattended. Can the DSP-93 correct for doppler with
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The mode B antennas seem to be too directional for these LEO birds.

  Q) If I wanted to go to a non steerable system for digisats which would
you choose ?

Any advice would be greatly appreciated.

daveb

>
>I have read today your question and I think I could be of a little help.
>I've also the DSP-93 but with a simpler TNC, a TNC-2 spanish clone. Well,
>the obvious 'problem' is the need to use two serial ports, one for the DSP
>and other for the TNC. As it is not usual to use both at time, I use (with
>success) ports COM1 and COM3, with shared IRQ 4. I use also an external

>(self-design) switcher in order to switch TNC clock (1200 or 9600 bps) and
>transceiver data (1200 PSK or 9600 FSK) (by the way, I have an FT-736R). I
>use only one port for both 1200 and 9600 satellites (so I have one left for
>future HF use), and currently I'm active on AO-16, LO-19, UO-22, KO-23 and
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>averages and I'm using only one antenna for downloading without amplifier).
>With this system, I have always up to date directories. I have also a G3RUH
>(original!) 9600 FSK modem, and I got same 9600 FSK results. So I think
>that, with little fine-setting, you can get it working fine for both kind os
>'birds'.
>
>

65. PC-DSP & PC-SIM, Limitations?

From: deh6@po.CWRU.Edu (Donald E. Haselwood)
Date: Fri, 12 Apr 1996 20:47:57 -0400
To: DSP-93@tapr.org
Message-ID: <199604130047.UAA06521@kanga.INS.CWRU.Edu>
Rendered body type: text/plain

I've been working my way through the PC-DSP Book (w disk). That version is limited to 1024 samples for sequences. This is more than sufficient for educational purposes, but not much beyond that.

The PC-SIM demo really looks slick for do some expermenting before coding for the DSP-93 (e.g. use the DSP-93 to take a batch of samples then use PC-SIM to "play" with it (or probably simpler, merely feed the radio into a sound card and generate a .WAV file).

For some reason I keep thinking that the PC-DSP & PC-SIM version in the planned purchase has some limitations (i.e. it is an academic version and not as full-featured as compared to a developer's version). If that is so I wouldn't be able do what I had in mind. I went back throught messages but I didn't find anything on the limitations. Maybe I got a crossed wire--and not the first time! Anyway, does anyone know if, or what limitations there are the version we are looking at?

Regards,
Don, K4JPJ

66. TAPR.ORG Status

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 16 Apr 1996 19:38:19 -0500 (CDT)
To: tapr-bb@tapr.org (TAPR-BB mailing), aprssig@tapr.org (BBS SIG mailing),
netsig@tapr.org (NETSIG mailing), bbssig@tapr.org (BBS SIG mailing),
hfsig@tapr.org (HF SIG mailing), dsp-93@tapr.org (DSP-93 Build),
das@tapr.org (das), tapr-tnc@tapr.org (tapr-tnc)
Message-ID: <199604170038.TAA13797@tapr.org>
Rendered body type: text/plain

As your e-mail boxes show, TAPR.ORG is again connected to the net. DataRace, our hosts, relocated their offices this weekend which caused the system outage. While TAPR.ORG was only down for a short time, without the connection to the service provider it was hard to service connections.

If you sent mail during the weekend, there is a good chance that your mail provider held your message and sent it when our connection was reestablished. If you don't see your e-mail then just send it again.

There will be some additional small outages during the week as the MIS folks at DataRace clean up the connection and move wires around.

Thanks for everyone patients during this down time.

Cheers - Greg, WD5IVD

67. Re: [DSP-93:2163] PC-DSP & PC-SIM, Limitations?

From: xbrucex <xbrucex@popmail.mcs.net>
Date: Tue, 16 Apr 1996 19:56:18 -0500
To: dsp-93@tapr.org
Message-ID: <199604170157.UAA23989@kitten.mcs.com>
Rendered body type: text/plain

Group -

I would recommend that we all get the developers edition. It should have

much better debugging utilities and better libraries.

Bruce K9BC

At 18:08 4/16/96 -0500, you wrote:
>I've been working my way through the PC-DSP Book (w disk). That
>version is limited to 1024 samples for sequences. This is more
>than sufficient for educational purposes, but not much beyond
>that.
>
>The PC-SIM demo really looks slick for do some expermenting
>before coding for the DSP-93 (e.g. use the DSP-93 to take a batch
>of samples then use PC-SIM to "play" with it (or probably
>simpler, merely feed the radio into a sound card and generate a
>.WAV file).
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>For some reason I keep thinking that the PC-DSP & PC-SIM version
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>academic version and not as full-featured as compared to a
>developer's version). If that is so I wouldn't be able do what I
>had in mind. I went back throught messages but I didn't find
>anything on the limitations. Maybe I got a crossed wire--and not
>the first time! Anyway, does anyone know if, or what limitations
>there are the version we are looking at?
>
>Regards,
>Don, K4JPJ
>
>

68. RE: TNCINIT.EXE help

From: "Bob Smith" <bsmith@msn.com>
Date: Tue, 16 Apr 96 06:42:37 UT
To: dsp-93@tapr.org
Message-ID: <UPMAIL01.19960416114318068 2@msn.com>
Rendered body type: text/plain

Thanks Ron - what I'm getting now is a random character instead of the first character of most lines (especially the PASSTHRU line) - tried both 9600 and 19200 on a serial port using a 16550 UART. BTW it's a different substitution each time.

About 1 in 5 times it works

Thanks.

From: dsp-93@tapr.org on behalf of Ronald G. Parsons
Sent: Sunday, April 07, 1996 3:41 AM
To: dsp-93@tapr.org
Subject: [DSP-93:2126] Re: TNCINIT.EXE help

Here's what I've found to work:
TNCINIT B:19200 F:TNC1.TXT
PASSTHRU ON
D:1000
BY:$0D <cr>
D:1000
BY:$52 R
D:1000
BY:$50,$4D PM
D:10000
BY:3,3,3
The thing that made it work was the D:10000. I don't know why such a large value was needed, but ...
Also MSPE will put the TNC into KISS, you should not do it.
I found more docs.
Ron W5RKN

TNCINIT V9.0
============

The Program TNCINIT is an Initialisation Program for TNCs with TAPR or WA8DED/NORD><LINK Firmware.
The Program has been developed for the automatic reconfiguration of TNCs for KISS-Mode-Employment with TAPR 1.1.6 Software. In the Version presented here; the Program can:

a) Switch on the KISS-Mode
b) Switch off the KISS-Mode and TNC-Reconfiguration
c) Reconfiguration of TNCs after SW-Coldstart e.g. with Double-Operation System 27C512-EPROM after switching
d) Switch off the WA8DED-Hostmode and TNC-Reconfiguration e.g. after RESYNC-crash of a Host Mode Terminal Program or of a DIEBOX

with the freely definable COM-Ports, COM1 to COM4 will be employed.

Program Calling and Command Line Parameters

The Call is: TNCINIT (Parameter List)

The Parameter List consists of Command Line Parameters, which provides a Parameter-Recognition. The individual appended Command Line Parameters are separated by an empty Character to the Program Call.

F:File	Filename of the Initialisation File	(must be indicated)
C:Port Number	1-4 for the employed COM-Port	(Default: 1)
C:Port,Adr,IRQ	Complete Definition of COMX with Base Address and IRQ	(Issue is optional for COM3 or COM4)
B:Baudrate	Baudrate	(Default: 9600)
W:Word length	Word length 7 or 8 Bit (significant)	(Default: 8)
P:Parity	Parity Odd Even None	(Default: N)
SB:Stopbit	Stopbit 1,2	(Default: 1)
H:Handshake	Handshake No Software Hardware	(Default: K)
S:TNC-SW	Recognition "TAPR","TF"	(Default: TAPR)
E:	Receive echo for Testing	(Default: none)
U:+-Hrs,+-Min	Global Time offset to UTC-Time	(Default: 0,0)

F:File

Filename for an ASCII-File which contains the Commands for the TNC-Reinitialisation and TNCINIT-instructions.

C:Portnumber,C:Portnumber,Base Address,IRQ

The Port to be employed can be selected by the declaration of its Portnumber 1=COM1... 4=COM4. Thereby will be employed the pre-defined Base Address and of the pre-defined IRQ of the issued Port COM1-COM4. For the non normal COM3,4-Cards and the old PCjr of IBM the COMX-Port is fully specifiable in the Form <Portnumber,Base Address,IRQ>.

Portnumber	COMX X=1-4
Base Address	Hexadecimal Port Address in Pascal-HEX-Notation with leading "$"-Character e.g. 338Hex is issued with $338.
IRQ	Interrupt direction of the Port Card.

Example: COM4 with IRQ3, Bass Address 2E8 will be issued with "C:4,$2E8,3".

With PS2-Systems the issue of Base Address in the total IO-Range of 64KB ($0000-$FFFFH) is possible.

B:Baudrate

Baudrate for the Serial Port to the TNC.

W:Word length

Word length on the Serial Port. Sensible Values are 7 or 8.

P:Parity

Parity Check following Character Codes:

"K" = No Parity Check
"G" = Even Parity
"U" = Odd Parity

SB:Stopbits

Number of Stopbits on the Serial Ports 1 or 2.

S:TNC-SW

This recognises "TAPR" or "arbitrary e.g. TF" will be needed by the Program for TNC-SW-specific employment such as Time/DateFormat or Command Line introduction. Internally the Program will be requested that only the clear recognition "TAPR", along with another SW-designation is freely selectable - certainly not "TAPR".

E:ON/OFF

Optional Call for the Screen output of received Echo Data from the TNC which arrived during the Initialisation. Serves for Help with the individual Time protection detection. With E:ON Echo will be switched on and E: or E:OFF switched off.

Instructions for TNCINIT in the Initialisation File
==========

In the Initialisation File stand the Commands for the TNC and the Command Parameters for the Program TNCINIT itself. TNCINIT-Commands occupy one individual File Line per Command. In these Lines no tabulations or Empty Character may be included.
TNCINIT can be configured and controlled with the following Commands in the Initialisation File:

CD:Character Delay in ms

With CD:Character Delay (Character protect time in ms) the protection time between individual Characters will be fixed . This TNCINIT-Command alters the Standard Installation in TNCINIT of 25ms which on this Command Data follows.

LD:Line Delay in ms

With LD:Line Delay the protection Time after the Transfer of a Line to the TNC will be fixed. This contains the average working time of a Command. The TNCINIT-Command alters the Standard Installation from 300ms in TNCINIT.

Employment of LD: und CD:

Both of these Commands should be the first two Lines of each Parameter-File in order to define the protection Times of the Characters and Line Transfer.

D:Delay in ms (immediate executed Protection Time)

With D:Delay after a Data Line, a Protection Time in ms can be inserted. This Command will be executed immediately.

K: Kiss-Reset-Command Transfer

With K: a KISS-Reset-Command dependent on the TNC-SW TAPR or WA8DED/TF can be transferred to the TNC.

A:Sync Character Code

This Command serves for the support of the Baudrate detection with Multimode-Controllers with Autobaud-Routines such as KAM or PK232. With A:42

("*") TNCINIT sends the Sync Characters continuously, up to the Multi-Mode-Controller agreeing with the PC-Baudrate. The Time Protection will be installed via the Character-Delay Parameter CD:.

BR:Break Time in ms

With BR: the Time in ms will be issued for a Break-Signal on the Serial Port. TNCs with TAPR-SW (or compatible) switch consequently into the Command Mode. This action is safer than e.g. the Sending of CTRL-C.

BY:Byte1,Byte2,Byte3,...,ByteN

With the BYte)Command a List of BYTES in ASCII Code can be transferred, which are not able to be produced with an Editor , e.g. CTRL-C, ESC., CTRL-X etc.

U: Date and Clock Time Setting

With U: Date and Clock Time of the PC-Clock will be transferred to the TNC . The Format is fixed through the TNC-Software Parameter.

U:+-Hrs,+-Min Date and Clock Time with UTC-Offset setting

With the issue of Hours and Minutes for the UTC-Offset the TNC can be set to UTC. The Parameter File Parameter overwrites the Command Line Parameter when this is issued additionally.

E:ON E:OFF Receive Echo switch on/off

With E:ON and E:OFF the Protection Time Parameter detection of the Receive Echo for critical situations can be switched on and off.

L:Control Byte

The L-Command makes it possible to set via a Control Byte and in a normal method for Hardware handshake employment, control RTS and DTR for the selection of a TNC to Port-Multiplexers such as the TNCIO-Card.

The connection between the Control Byte and the Handshake Control is as follows:

Control Byte	DTR	RTS	on= +3V to +30V (mostly +7 to +11V)
0	off	off	off= -3V to -30V (mostly -7 to -11V)
1	off	on	
2	on	off	
3	on	on	

The connection between the Control Byte and the TNC-Number is dependent upon respective Multiplexer Hardware and must be investigated.

CL:ON CL:OFF

TNCINIT normally sends each Line as a Command Line to the TNC, that means that before the sending of a Line the TNC must be switched into the Command Mode.
(BREAK-Signal with TAPR, ESC-Character with WA8DED/The Firmware).
For the new loading of Texts in TNC-Mailboxes e.g. with the PK232 the Command Switching must be deactivated. In such a manner Texts can be transferred after CL:OFF and after the Text Transfer will be reinstalled to the normal Command Transfer with CL:ON. TNCINIT transfers Standard Method each Line as a Command Line.

HR: WA8DED-Hostmode switch off

This Function serves for the purpose of switching back a TNC with WA8DED-Software into Terminal Mode from Host Mode. This Function is very useful

when a Host Mode Terminal Program has closed itself after RESYNC-Errors
(especially SP) and the TNC has remained in Host Mode. Also useful for
DIEBOXES.

: Commentary Lines to the Documentation

It is useful to include Commentary within Initialisation Files. For that
purpose the following possibilities are given:

Independent Commentary Lines begin with ": " and then the Commentary Text.
No further Character may stand in front of the Empty Character.

Example: Initialisation File for Kiss-Re-initialisation S1.1.6B-SW

For TNCINIT-Commands at least 1 Empty Character or 1 Tab separating
Commentary can be appended. TNCINIT separates a Command after the first TAB
or Empty Character and ignores the rest of the Line.

Example: CD:25   Character Protection Time 25ms for PK232

Data Lines which will be transferred to the TNC, no Commentary may be
appended.

Structure of an Initialisation File

A TNCINIT-Initialisation File bears a likeness to a Batch file with linear
execution. Actually with the TNCINIT-Commands in Connection with the TNC-
Commands is a simple Command Language for the automatic TNC-Configuration.

This determines the following construction of an Initialisation File:

1. Definition of Protection Time for the Transfer
2. Achievement of Commands or Transfer from TNC-Data
3. Insertion of Protection Time in the execution of the Initialisation File

1.-3. are by demand to repeat multiples inside the Initialisation File.

Example two Initialisation Files for TNCINIT

As Examples are better than a 1000 Words here is my Re-initialisation File
for a S1.1.6B-Software with Message filing.

```
------------------------------------------------------------------------------
: Example of an Initialisation File for a S1.1.6B-Software for the return
: switching out of the KISS-Modes and Re-Parametering of the TNCs
: Valid for TNCINIT from Version 8.X

: Standard Protection Times definition
Character Protection Time (Character Delay) 20ms ld:200
Line Protection Time (Line Delay) 200ms

: set the TNC back out of the KISS-Mode
k:               Send KISS-Reset-Command
d:2000           After KISS-Reset 2s (2000ms) wait til TNC-SW runs anew

: Port and Handshake Parameter definition
awlen 8
parity 0
flow on
xflow on
txflow on
trflow on
autolf off

: set AX25 Parameters of the TNC
paclen 236
conmode conv
8bitconv on
ppersist on
persist 64
frac 10
txdelay 20
```

```
: Call Signs (User and messages filing PMS) and CTexts set as soon as
: diverse Format Parameters installed.
mycall dl5fbd-1
mypcall dl5fbd
ctext * DL5FBD-1 * Gerd Michael aus Frankfurt-Nied,JO40HC,DOK F43 * "MSG ->
DL5FBD" *
cmsg on
pms on
3rdparty off
dayusa off
users 10
mstamp on
headerline on

: TNC Warm start for the Activation of the Port Parameter of the TAPR-SW
restart

d:2000           After Restart wait 2s (2000ms)
u:-2             For the conclusion place Date and Time of the TNC with UTC
-------------------------------------------------------------------------------

As a second Example an Initialisation File for switching on KISS in a
PK232 with AUTOBAUD-Routine with the Initialisation.

-------------------------------------------------------------------------------
: KISS-Switch on PK232 with AUTOBAUD

cd:500      0,5 Seconds Time Pause with AUTOBAUD-Synchronisation
a:42        AUTOBAUD
d:2000      Afterwards 2s Pause

cd:25       25ms  Time pause and
ld:200      200ms Time pause for Normal Transfer

KISS ON
RESTART

d:2000      Once again 2s Pause
-------------------------------------------------------------------------------

As a third Example the Initialisation of a PK232 and the 'getting going' of
a Info in a PK232-Maildrop of an Initialisation Example from Thomas DG9AAD.
By Experimentation with this Example please replace the Station's Data of
Thomas with the Individual Data:

-------------------------------------------------------------------------------
e:on        Echo switch on
cd:500      0,5 Seconds Time Pause with AUTOBAUD-Synchronisation
reset
a:42        AUTOBAUD
d:2000      Afterwards 2s Pause
cd:25       25ms  Character Pause and
ld:500      200ms Line Pause for Normal Transfer
3R on
8B on
AXD 10
BT Test von DG9AAD
CB on
CF no xx0xx nocall pk232
CHC on
CHD on
CH 60
CHS 01
CMS on
CONS on
CT Hi! You are connected with Thomas - DG9AAD - in Weferlingen.
MTE No Computer on the PK232MBX - Please H for Help or R 1 for Info.
DA 900321150000
DF none
DW 20
FR 6
HEA on
MA on
MAX 4
MDM on
MDP Title?:/Text issue, (CTRL-Z) or /EX to end
MM on
MSt on
MY DG9AAD
```

```
PE 32
PACL 64
REL on
SL 10
TX 20
US 3
mdc
s all
CL:OFF  Command Line Switch on for Mailbox switch off
Info!
Hello,
the Computer will be required for the benefit of other functions - or I am
not here!
You can leave a Message for me here. Help
is given with (H)elp. Leave the Mailbox with (B)ye.
To finish yet a small Info about the Station:
================================================
QTH (LOC)-------> Weferlingen (JO 52 ID)
TRX ------------> Yaesu FT-470 Duoband Hfg.
Computer--------> Schneider Euro-PC (XT komp.)
TNC/Software ---> PK-232MBX + Term V 9.86
Ant ------------> Comet Duoband-GP for 2m/70cm
DOK ------------> H36, Wolfenbuettel
OP's Name-------> Thomas
------------------------------------------------
Phone-DTMF-Code-> 439 via DB0OI [438.675]
================================================
/ex
CL:ON  Switch on Command Line again
e 1 < SYSOP
e 1 B
e 1 Y
b
u:0,0
```

Default-Parameters and Adaptation

The examples of the Time Pparameters are those that are functional for me with a TNC2c TF2.1c/TAPR S1.1.6B (CPU: 4.9MHz). With Version 1 of this Program many OMs must alter the Parameters, these are now installable via the Command Lines. The Command E: allows the Display of the received Data on the Screen and eases the finding of a Parameter.

Note: unfortunately it does do to give generally valid Parameters.
Particularly the CPU_Frequency of the TNCs affects the speed enormously. Users with TNCs and 2,45MHz (Landolt) possibly must adapt their Parameters. The Reference Rate to the SIO must be adapted to 600 Hz, otherwise there will be only anger with TAPR 1.1.6/7 and TF2.1X.

Upper or Lower Case is optional for Text Parameters and Parameter recognition.

Defining of Ports COM3 und COM4
==========

COM3 and COM4 are Standard with the Parameters of my IOSA-Card

COM=3 Base Address=338H IRQ=2 (C:3,$338,2)
COM=4 Base Address=238H IRQ=5 (C:4,$238,5)

pre-defined. Other Base Addresses and IRQs can be defined always with the expanded C:-Parameter. Anyone who has the desire for Source Code alteration, can adapt the Parameters in the Unit V24.PAS for his Ports. After this adaptation the new Parameters are the Default Parameters for COM3 and COM4.

The Data Base Address and IRQ should be taken from the Manual of the Port Card.

In the case where this Data is not available help yourself by the following:

1. Read out of the next Mailbox the Program COMFIND by me and allow this to run with installed COM3/4-Hardware.
   The Program ascertains the Base Address of the COM3/4-Card by a Register Contents investigation.

(Translator's Note: there are other Programs available in UK that does
the same thing e.g. Checkit, if COMFIND is not available).

2. Remove all Programs that use COM1/2. Then test it with a Terminal
Program e.g. TERM, PCPLUS or TELIX with installed Base-Address which IRQs
2-5 will be received by the Characters to and from the TNC. The so
obtained IRQ is the IRQ of the COM3/4-Ports.

3. The new V24-Port library V5.0 allows the usage of the AT-IRQs 8-15 for
Hardware Specialists whoh have modified their COM3/4-HW. Also with that
the support of this Special Port has been accomplished.

It is to be observed, that in no case can two Ports be allowed to access the
same IRQ, because this leads to the destruction of the COM-Ports. This is
valid for COM3 and COM4 which access on the COM3/4-IRQs.

Bob Smith
Desktop and Online Services Strategy Group
mailto:rsmith@internetmci.com
http://www2.fyionline.com/~bsmith
Tel. 770-668-5231

Bob Smith
mailto:rsmith@internetmci.com
http://www2.fyionline.com/~bsmith

69. Re: [DSP-93:2162] Re: DSP-93 or AEA 2232?

From: Fermax.esp@vlc.servicom.es
Date: Wed, 17 Apr 1996 08:03:25 +0200
To: dsp-93@tapr.org
Message-ID: <199604170603.IAA07760@ns.mad.servicom.es>
Rendered body type: text/plain

Hello Dave,

At 18:08 16/04/96 -0500, you wrote:
>
>Greetings,
>
>I stumbled upon you post to this reflector and was very pleased to see that
your
>setup is very similar to what I am starting to do. My setup is as follows
>
> FT-736R
> DSP-93 W/MFJ1270B TNC
> WISP
> Mode B class Antennas 2x13B2s dwnlnk, 1xKO22 uplnk.

Yes!. It is a very similar setup. My antennas are worse than yours: 2x9
elements for 2 meters and 1x21 elements for 70 cm. But I'm downloading more
than 1MB in some KO-23 passes (hi!, this is the barrier all digisat users
want to pass :-)). And without pre-amplifiers. The only 'enhancement' is a
good transmission line (aircom coax) in the 70 cm downlink. It is the best
'amplifier' you can use. And it doesn't need any power supply :-) !.

>I am just starting out on the digital birds. I would be very greatful for your
>input about getting decent results.
>
>So far I have been able to copy LO-19 using a standard comm program. Not good
>with WISP yet.
>
> Q) My computers clock is set @ UTC. WISP keeps calculating an offset of 4
>hours
>   even though I set TZ=UTC in autoexec. What am I doing wrong ?

Have you checked, in 'General Setup', timezone to 'UTC'?. And in
'Housekeeping', option 'Set system time', check also 'UTC' and test if the
time shown is the correct.

>I am using NOVA for traking. It has the capability of interfacing with the
>CAT port of the 736R.
>
> Q) What are you using for controlling the rig (doppler etc)? I would like to
>   eventually have it run unattended. Can the DSP-93 correct for doppler with

>   the 9600 baud as it does for the PSK ones ?

I have a 'Kansas City Tracker with Tuner' (KCT/T for short), which manages
rotors and Doppler shift (this last by means of 736R CAT port). I'm not sure
if this can be made from DSP-93, but I guess that, as 9K6 modems have a lot
of work to do, it can be difficult to manage with Doppler. Is NOVA capable
of controlling Doppler?.

>The mode B antennas seem to be too directional for these LEO birds.
>
> Q) If I wanted to go to a non steerable system for digisats which would
>you choose ?

Some hams here in Spain are using 'J-pole' and similar antennas, but they
usually need a good preamplifier to get some data (about 300K in better
passes), but I think it is not a good choice. I have now elevation rotor,
but without it, putting antennas fixed to 20 degrees elevation, I was able
to get up to 600K in better passes, so I think it would be a good choice:
control azimuth only.
Look at AMSAT site (www.amsat.org) for articles about antennas for satellite
use. There are samples of both kinds.

>Any advice would be greatly appreciated.
>
>daveb

Well, I hope this helps. Please, answer me whatever thing you want about
this matter... I'll try to do my best in helping you.

Regards.

73's JOSE - EB5AGV / EC5AAU

70. HF modems

From: "L. J. Shepherd" <ljs@west.net>
Date: Fri, 19 Apr 1996 19:16:33 -0700
To: fperkins@onramp.net
Cc: DSP-93@tapr.org
Message-ID: <199604200216.TAA18211@acme.sb.west.net>
Rendered body type: text/plain

Hi Frank:
        I've been continuing to experiment and correspond with Johan regarding
his new PCTOR version and the DSP-93.....with your indulgence, I thought
I would bring you an update:

1. In July of last year, you kindly sent me a copy of your AMTR93U1.OBJ
code, which as you may recall, I have been unable to run on my (otherwise
functioning) DSP93. Well, just on a hunch, I sent the exact same code up to
Johan and it ran fine on his DSP93, a beta version with V2.14 eprom code,
much to our mutual surprise. I'm running V2.15 in my DSP93.
        The obvious question is why it works on his DSP93 and not my own....??

2. I've tried loading from both DOS with DSPLOAD and WINDOWS with
D93WE......I can load other modems (Dave Mill's, your HF_93HT.OBJ, etc) with
either method, so the loading process is not likely suspect.

3. I'm loading via COM4, at IRQ 11, via a 16550AFN. DB9 cable is OK.

4. I'm wondering if DSP93 V2.17 is needed to get AMTR93U1.OBJ to load
successfully ??

        I'm not trying to press with respect to being able to transmit, as I
do recall your comments regarding the present problems related to the UART
interface, but I would like to get AMTR93U1.OBJ to load successfully, so I
can do some receive testing. Your comments or suggestions will be most
appreciated.
                                73, JIM K6OYY   TAPR502 AMSAT ARRL

71. Re: [DSP-93:2168] HF modems

From: fperkins@onramp.net
Date: Sat, 20 Apr 1996 11:38:56 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199604201638.LAA24233@mailhost.onramp.net>
Rendered body type: text/plain

Hi Jim,

I don't think I am running the latest EPROM Rev. Anyway,

attached is AMT93Z1.OBJ which is the latest AMTOR code I
have worked on. Maybe it will load ...

73 Frank WB5IPM
[Attachment: AMT93Z1.OBJ; application/octet-stream; 4,666 bytes]

72. Re: [DSP-93:2169] Re: HF modems

From: "L. J. Shepherd" <ljs@west.net>
Date: Sat, 20 Apr 1996 19:17:32 -0700
To: dsp-93@tapr.org
Message-ID: <199604210217.TAA20132@acme.sb.west.net>
Rendered body type: text/plain

Hi Frank: Thanks very much. I will try it this evening....here's hoping !
                                        73, JIM K6OYY

At 05:56 PM 4/20/96 -0500, you wrote:
>Hi Jim,
>
>I don't think I am running the latest EPROM Rev. Anyway,
>attached is AMT93Z1.OBJ which is the latest AMTOR code I
>have worked on. Maybe it will load ...
>
>73 Frank WB5IPM
>
>
>Attachment Converted: C:\MOSAIC\EUDORA\EUD152\AMT93Z1.OBJ
>

73. DSP-93 For Sale

From: robertsm@jsc.mil
Date: Sun, 21 Apr 1996 09:23:17 -0400
To: dsp-93@tapr.org
Message-ID: <96Apr21.092034edt.6500@annap2.jsc.mil>
Rendered body type: text/plain

I have a working DSP-93 for sale. Includes all documentation and
software. Price $400.
  Mel Roberts W3MR robertsm@jsc.mil
410-956-4529

74. Re: [DSP-93:2168] HF modems

From: muphaus@cris.com (Marv Uphaus)
Date: Sun, 21 Apr 1996 20:26:04 -0500
To: dsp-93@tapr.org
Message-ID: <sAuexM82cmtQ085yn@cris.com>
Rendered body type: text/plain

On Fri, 19 Apr 1996 21:24:32 -0500 (CDT) "L. J. Shepherd" <ljs@west.net> wrote:

>   The obvious question is why it works on his DSP93 and not my own....??

In the two lines prior to this one, you answered your own question...!!!
Those two lines stated:

>   it ran fine on his DSP93, a beta version with V2.14 eprom code,
>much to our mutual surprise. I'm running V2.15 in my DSP93.

Just MY guess...!!!

Marv, K4BVG...

Even when the experts all agree, they may well be mistaken.
                                --Bertrand Russell
PGP PUBLIC KEY posted at pgp.mit.edu

June 1996

Original source file: dsp.9606
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9606

1. PacComm dsp93-TNC

From: Charles Yaciw <yaciw@ct.net>
Date: Sat, 01 Jun 1996 21:46:00 -0400
To: dsp-93@tapr.org
Message-ID: <31B0F258.20B3@ct.net>
Rendered body type: text/plain

To all PacComm dsp93 TNC users, hardware Gurus and programmers..

HELP.....

Why do I get the feeling that the discussion on the lack of handshaking,
real or perceived is irrelevant. Since D93WE successfully loads .obj
files in both single-port/PASSTHRU and original two port configurations
and DSPLOAD.EXE does not, it appears that a software fix should the
problem. (sorry to say I wasted away my youth in not sticking with
advice on learn programming)
If I had stuck with it I would know how to hack the firmware to default
the TNC terminal baud rate to 19200 or even fix the quirky (random
reset) operation and the bbRam data loss, but I kinda think its too late
to mend my ways.

None of the above applies to the original dsp-93 2 port external Tiny-2
configuration which works great.

 I/we will appreciate any help offered.

73 Chuck K4IL
Lake Placid, Fl.

---

2. Re:PC-DSP/PC-SIN for Windows ORDER INFO

From: Junhyun Shin <hl1sqi@neptune.samwoo.co.kr>
Date: Sun, 2 Jun 96 15:09:33 KST
To: dsp-93@tapr.org
Message-ID: <199606020609.PAA16152@neptune>
Rendered body type: text/plain

Dear James

I also would like to be on the list for purchaging
the both of them (PC-DSP, PC-SIM).

VR TNX CUL 73!

de Junhyun Shin (hl1sqi@amsat.org)

---

3. Simple fix for PacComm DSP-93 TNC

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sat, 8 Jun 1996 16:11:39 -0500
To: dsp-93@tapr.org
Cc: gwyn@paccomm.com (Gwyn Reedy, W1BEL)
Message-ID: <v02140b00addf998f5713@[204.251.33.79]>
Rendered body type: text/plain

Here is a simple "fix" (well significant improvement) for using the DSP-93
with the PacComm DSP-93 TNC.

A problem with the PacComm TNC is that there is data overrun in passthru
mode between the DSP-93 and the TNC. A simple way to greatly improve the
operation is to slow down the DSP-93's serial port speed. There is no
command to do this (it is "fixed" at 19.2 kbs). However, it is possible to
slow this down to 9600 bps by changing the crystal on the DSP-93 analog
board (board 2) to half its value. Just pull the original crystal and
install a 2.4576 MHz crystal (about $5).

Set the baud rates for the PacComm TNC to 9600 for both Terminal and DSP Serial.

This is NOT a cure-all, but I found no failures using DSPLOAD or D93WE. The
"?" and "P" commands printed perfectly on the DSP-93. Even the Dump command
worked quite well.

At least, it'll get you through the night.

Ron W5RKN

also:
rparsons@bga.com

4. Re: [DSP-93:2261] Simple fix for PacComm DSP-93 TNC

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 09 Jun 1996 00:59:12 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19960609005912.0067e128@camel.campbell.edu>
Rendered body type: text/plain

Well done, Ron. Keep up posted during the long term trials...

What's the matter-- you getting bored? We must need another project for
this group; the TNC-95 maybe? ;-)

At 16:30 6/8/96 -0500, you wrote:
>Here is a simple "fix" (well significant improvement) for using the DSP-93
>with the PacComm DSP-93 TNC.
//
>At least, it'll get you through the night.
>
>
>Ron W5RKN
>
>also:
>rparsons@bga.com
>
>
>
>

Mark L. Hammond   [KC4EBR]

5. Re: [DSP-93:2261] Simple fix for PacComm DSP-93 TNC

From: Charles Yaciw <yaciw@ct.net>
Date: Sat, 08 Jun 1996 22:47:01 -0400
To: dsp-93@tapr.org
Message-ID: <31BA3B25.AFA@ct.net>
Rendered body type: text/plain

Ronald G. Parsons wrote:
>
> Here is a simple "fix" (well significant improvement) for using the DSP-93
> with the PacComm DSP-93 TNC.
>
> A problem with the PacComm TNC is that there is data overrun in passthru
> mode between the DSP-93 and the TNC. A simple way to greatly improve the
> operation is to slow down the DSP-93's serial port speed. There is no
> command to do this (it is "fixed" at 19.2 kbs). However, it is possible to
> slow this down to 9600 bps by changing the crystal on the DSP-93 analog
> board (board 2) to half its value. Just pull the original crystal and
> install a 2.4576 MHz crystal (about $5).
>
> Set the baud rates for the PacComm TNC to 9600 for both Terminal and DSP Serial.
>
> This is NOT a cure-all, but I found no failures using DSPLOAD or D93WE. The
> "?" and "P" commands printed perfectly on the DSP-93. Even the Dump command
> worked quite well.
>
> At least, it'll get you through the night.
>
> Ron W5RKN
>
> also:
> rparsons@bga.com

Hi Ron...

Super Ron..It works!
So far dwe93 does it all without a hiccup. DSPLOAD does the FSK9600
modems just fine but balks at loading the PSK93R..obj files. Haven't
tried the earliest psk modems yet..I'm off to bed.
73 Chuck K4IL

6. Re: [DSP-93:2262] Re: Simple fix for PacComm DSP-93 TNC

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sat, 8 Jun 1996 22:03:36 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b00addfeea955c7@[204.251.33.85]>
Rendered body type: text/plain

>Well done, Ron. Keep up posted during the long term trials...
>
>What's the matter-- you getting bored? We must need another project for
>this group; the TNC-95 maybe? ;-)
>

I should live so long!

How's your summer? We've been VERY dry here, except since May 27 we've had
1.4 + 2.5 + 3.2 + 2.6 inches.

Ron W5RKN

also:
rparsons@bga.com

7. Re: [DSP-93:2263] Re: Simple fix for PacComm DSP-93 TNC

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sun, 9 Jun 1996 08:29:36 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b00ade080e7b19a@[204.251.33.10]>
Rendered body type: text/plain

>Ronald G. Parsons wrote:
>>
>> Here is a simple "fix" (well significant improvement) for using the DSP-93
>> with the PacComm DSP-93 TNC.
>>
...
>
>Hi Ron...
>
>Super Ron..It works!
>So far dwe93 does it all without a hiccup. DSPLOAD does the FSK9600
>modems just fine but balks at loading the PSK93R..obj files. Haven't
>tried the earliest psk modems yet..I'm off to bed.
>73 Chuck K4IL

Well, I usually load the PSK_93... files but after repeated trials, I do
get a few failures. I guess for the PSK fans, you could go down to 4800 bps
with an even slower crystal.

Looks like about 3800 bytes for the .OBJ file may be the limit for 9600 bps.

Ron W5RKN

also:
rparsons@bga.com

8. Re: [DSP-93:2261] Simple fix for PacComm DSP-93 TNC

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Wed, 12 Jun 1996 15:46:04 -0500
To: dsp-93@tapr.org
Cc: gwyn@paccomm.com (Gwyn Reedy, W1BEL)
Message-ID: <v02140b01ade4da3c9ff9@[204.181.160.6]>
Rendered body type: text/plain

A few days ago I suggested a "fix" for the PacComm DSP-93 TNC which slowed
down the DSP-93's serial port to 9600 bps. (See original note below).
Further investigation has shown that this fix works for D93WE but still
fails for DSPLOAD for .OBJ files in excess of about 3800 bytes.

I had forgotten that the DSPLOAD source is on the TAPR ftp site.
.../dsp93/software/dspload.c. It is also on the TAPR CD-ROM.

A software wait could be inserted into DSPLOAD after each line is sent to
the DSP-93/TNC. I don't have compilers for the DOS environment, but I'm
sure if someone needs this source compiled, a "plea for help" would turn up
a helper.

The spot for the wait is just after the two occurrences of:

```
 out(0x0d,io);
 out(0x0a,io);
 <insert wait here>
}
```

The amount of wait time could be adjusted to suit your needs.

These two "fixes" should make the PacComm DSP-93 TNC quite usable.

Ron W5RKN

>Here is a simple "fix" (well significant improvement) for using the DSP-93
>with the PacComm DSP-93 TNC.
>
>A problem with the PacComm TNC is that there is data overrun in passthru
>mode between the DSP-93 and the TNC. A simple way to greatly improve the
>operation is to slow down the DSP-93's serial port speed. There is no
>command to do this (it is "fixed" at 19.2 kbs). However, it is possible to
>slow this down to 9600 bps by changing the crystal on the DSP-93 analog
>board (board 2) to half its value. Just pull the original crystal and
>install a 2.4576 MHz crystal (about $5).
>
>Set the baud rates for the PacComm TNC to 9600 for both Terminal and DSP
>Serial.
>
>This is NOT a cure-all, but I found no failures using DSPLOAD or D93WE. The
>"?" and "P" commands printed perfectly on the DSP-93. Even the Dump command
>worked quite well.
>
>At least, it'll get you through the night.
>
>
>Ron W5RKN
>
>also:
>rparsons@bga.com

Ron W5RKN

also:
rparsons@bga.com

9. dspload.c

From: Dave Lamont <dlamont@central.co.nz> (by way of w5rkn@amsat.org (Ronald G. Parsons))
Date: Wed, 12 Jun 1996 22:45:48 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b00ade53e25194f@[204.251.33.81]>
Rendered body type: text/plain

Hi Ron,

Quite a co incidence. I was getting my thoughts together to
send you my findings and conclusions.

What you say about DSPLOAD needing some pacing is 100% true
and is borne out with tests here.

I *WAS* attempting to run the DSP93/TNC combo at 19200 directly
into the DSP port. The computers were a 133 and a 160 MHZ pentium
respectively. The 133 meg unit would load fsk93k1, pktp1, but no way
would it load a psk obj file. The 160 meg unit was out of the question
altogether. Some time it would load a program but more often not.
Switching the rs232 lead to a 486/66 and EVERTHING came right at
19200 into the dsp93 port.

Halfing the UART crystal to 2.4xx and repeating the tests radically
improved things. However when things needed to be put all back
together the mix of other utilities and the defaulted dsp93 at 9600
baud were impractical from a total automation point of view.

BTW I have total automation with the DSP|TNC combo for ALL the

satellites. That is using two comm ports, two DSP93 I\O ports,
a small signal diode across the PTT ports to give me single lead PTT
from either DSP port, and a 486\66 computer using Wisp. I have renamed
several obj files and altered gain within the obj to cope with
local bbs and psk satellites on port two. All Fsk stuff is on port one.

I have had much the same problem with diagnostic and setup software
for Motorola cell phones. We had to pace the data into the units
after upgrading to Pentium computers. Also the FT736\KCT combo does not
work 100 per cent when installed into fast Pentiums. Antenna tracking
and doppler shift work OK as they are paced about
1 sec. But the initial instructions of CAT ON and change mode dont work.
The unit switches to computer control with no mode change.
Once again reverting to a 486\66 fixes it. Chris ZL2TPO\G7UPN has
been advised and once again pacing is to be used in the KCT driver
routine. {Along with others I am beta testing 32 bit WISP}

Another small problem with the DSP scene was John's {KA1JMF} utility
called DSPBAUD. The program itself works fine BUT leaves the RTS
unasserted on exit. Wisp MSPE is unable to transfer data to initialise
the TNC.
A small program called COMSET is used after the DSPBAUD routine
to assert RTS\CTS.
i.e.
ko-23.bat
dspload fsk93k1
dspbaud 1,1,1
comset 19200 1 u

This maybe a WIN95 problem???

  {ftp:\\ftp.vuw.ac.nz\simtel\msdos\commprog\comset9.zip}

I have Borland v 4.5 C here and have managed to transpose all of
DSPLOAD.C from the AZTEC format. Unfortunately it compiles without
errors now, but has a linking error that I am unable to find. Once
I had gottten the original file to compile and link I was going
to look at inserting some pacing. My thoughts were to extend
the argument chain to dspload fsk93k1 x, where x is a pacing delay.

I dont know if this will be relevant, I think the dsp needs to
be restored to 19200 if possible. Would not Reedy be delighted if
after all this time it was deficiencies in the DSP93 com routines.

best 73

dave   zl2amd   dlamont@central.co.nz

10. Re: dspload.c

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Thu, 13 Jun 1996 15:10:46 -0500
To: Dave Lamont <dlamont@central.co.nz>
Cc: dsp-93@tapr.org
Message-ID: <v02140b01ade6250b595c@[204.251.33.91]>
Rendered body type: text/plain

>The dsp93 port, i.e. with the chip in and fed from a windows 95
>com port at 19200, will only load obj files of 3k or thereabouts.
>
>It will NOT directly load programs any larger. The same symptom
>you are seeing now at 9600.

Dave (or anyone),

If you modify dspload.c, spend an extra few minutes and add a pacing
parameter to DSPLOAD.CFG. That way, users can vary the pacing time without
having to recompile the code. Thia would make a GREAT addition to the
dspload code.

>Is the source available for the dsp93 eprom. It makes sense that
>when one has decided what the priority obj files are,why not blow them
>in to a custom eprom. Fast loading with no corruption, works at 19200
>with pass thru {who cares if you cant read the menu the script file
>calling the required menu letter could no care less}

Bob hase made mention of a "user modifiable" varsion of the EPROM where the

users favorite object files could be added to the DSP-93's onboard
permanent memory. Bob, any movement in this direction?

Ron W5RKN

also:
rparsons@bga.com

11. Re: [DSP-93:2268] Re: dspload.c

From: Dave Lamont <dlamont@central.co.nz>
Date: Fri, 14 Jun 1996 00:32:38 +0000
To: dsp-93@tapr.org
Message-ID: <31C0B326.282D@central.co.nz>
Rendered body type: text/plain

Ronald G. Parsons wrote:
>
> >The dsp93 port, i.e. with the chip in and fed from a windows 95
> >com port at 19200, will only load obj files of 3k or thereabouts.
> >
> >It will NOT directly load programs any larger. The same symptom
> >you are seeing now at 9600.
>
> Dave (or anyone),
>
> If you modify dspload.c, spend an extra few minutes and add a pacing
> parameter to DSPLOAD.CFG. That way, users can vary the pacing time without
> having to recompile the code. Thia would make a GREAT addition to the
> dspload code.
>
> >Is the source available for the dsp93 eprom. It makes sense that
> >when one has decided what the priority obj files are,why not blow them
> >in to a custom eprom. Fast loading with no corruption, works at 19200
> >with pass thru {who cares if you cant read the menu the script file
> >calling the required menu letter could no care less}
>
> Bob hase made mention of a "user modifiable" varsion of the EPROM where the
> users favorite object files could be added to the DSP-93's onboard
> permanent memory. Bob, any movement in this direction?
>
> Ron W5RKN
>
> also:
> rparsons@bga.com*

The communications between Ron and myself were not really intended
for the wider audience in the first instance.

I would like to qualify the statement regarding the DSP93 port
not loading larger OBJ files like the PSK ones.

My original message stated that when USING a fast Pentium the errors
with DSPLOAD occurred. Switching to a 486\66 produced no errors.

In all cases the tests were carried out in a Windows 95 Dos Shell.The
computer configurations are\were true INTEL Pentiums with Intel
chipset motherboards. Comm ports provided directly off the motherboards.

Dave ZL2AMD   dlamont@central.co.nz

12. IC-821H

From: py4lf@bis.com.br (julio morais)
Date: Sat, 15 Jun 1996 11:21:12 -0300
To: amsat-bb@amsat.org
Cc: dsp-93@tapr.org
Message-ID: <9606151421.AA21876@brasilnet.com.br>
Rendered body type: text/plain

Hello fellows!I´m looking for a new rig for satellite comunications
with all features of DSP-93.
        Who knows info about IC-821H performance?
        I´ll apreceate!
```
**********************************************
* Júlio M. C. Morais // R. Beta 363 // 35160-070*
* Ipatinga // MG // BRAZIL                     *
* Fone:55-31-8214084 // Fax:55-31-8293063      *
* .........................................*
* PY4LF // Loc GH80rm                         *
```

```
* Internet: py4lf@bis.com.br                    *
* HAM Radio: @ AO-16 LO-19 // AMSAT 26.515      *
************************************************
```

13. Re: [DSP-93:2270] IC-821H

From: ssalek@h-e.com
Date: Mon, 17 Jun 96 09:19:07 PDT
To: dsp-93@tapr.org, py4lf@bis.com.br (julio morais)
Message-ID: <0000048D.sm@h-e.com>
Rendered body type: text/plain

```
>        Hello fellows!I=B4m looking for a new rig for satellite=
> comunications=20
>with all features of DSP-93.
>        Who knows info about IC-821H performance?
>        I=B4ll apreceate!
>************************************************
>* J=FAlio M. C. Morais // R. Beta 363 // 35160-070*
```

Hello Julio and others--

I have an IC820H, the predecessor to the 821H. It is a nice rig from a specs point of view, but it has lacked some operational features that are supposed to be fixed in the 821H. As I'm sure you have seen, the 821H adds sub-band transmit, sub-band CW filter option and noise blanker, easier satellite tuning, and a CW keyer, none of which were found in the 820H. I understand that the basic receiver/transmitter circuitry of the 821H is the same as found in the 820H.

I have not been able to verify if the 821H has fixed some important items: 1) Does it have a sub-band FM demod output on the back panel for 9600 baud pacsats? (the 820H requires a fairly intensive modification to add this feature -- lots of dissasembly), 2) are the FM demod output(s) buffered (unlike the 820H), and 3) does the 821H have finer resolution than 100 Hz on the mic up/down clicks found on the 820H? The mic click method of doppler tuning for PSK pacsats is too erratic on the 820H, because of this limitation.

If anyone knows the answers to these questions, please post a response!

73,

Stan
KD6CVL

14. PLD-Listings

From: "ulrich.schaarschmidt" <e_schaar@UniBw-Hamburg.DE>
Date: Thu, 20 Jun 1996 10:32:43 +2
To: dsp-93@tapr.org
Message-ID: <199606200834.KAA16510@rzsparc-3.unibw-hamburg.de>
Rendered body type: text/plain

Dear staff,
I would like to have the souces of the PLDs/GALs (U112,113,210),
but can't find them in the manuals of the kit nor in the ftp-area.
Please have a short msg to sender.
73 & 55 de Uli, DJ1HM

15. New DSPLOAD for PacComm TNC for DSP-93

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Tue, 25 Jun 1996 14:05:21 -0500
To: dsp-93@tapr.org
Cc: gwyn@paccomm.com (Gwyn Reedy, W1BEL)
Message-ID: <v02140b00adf5e2579412@[204.251.33.76]>
Rendered body type: text/plain

Dave Lamont zl2amd <dlamont@central.co.nz> and I have been experimenting with the "PacComm TNC for DSP-93". We have discovered two improvements that bring the "PacComm TNC for DSP-93" into a useable state.

These have been mentioned here before but I'll summarize again.

1.
To improve the throughput from the DSP-93 through the "PacComm TNC for DSP-93" in PASSTHRU mode, you may wish to slow the DSP-93 serial I/O down to 9600 bps. This is easily done by changing the crystal on the DSP-93 analog board (board 2) to half its original value. Just pull the original crystal and install a 2.4576 MHz crystal (about $5).

Set the baud rates for the "PacComm TNC for DSP-93" to 9600 for both
Terminal and DSP Serial. You will also have to change DSPLOAD.CFG.

2.
To improve the throughput from the "PacComm TNC for DSP-93" to the DSP-93
in PASSTHRU mode using DSPLOAD, a pacing parameter has been added to the
DSPLOAD command line.

The command instructions are now DSPLOAD FILENAME DELAY
where DELAY is in milliseconds.

           i.e. dspload psk93r2w 100

The pacing parameter DELAY adds a delay after each .OBJ file line to allow the
"PacComm TNC for DSP-93" to catch up. Use the minimum value for DELAY that
works with your system.

A companion program TNC.EXE is also provided and may be found in the .ZIP
file. Execute TNC.EXE without parameters for syntax.

Please report all problems and successes to the dsp-93@tapr.org mailist.

I have asked Mark to place these files in

ftp://ftp.tapr.org/tapr/dsp93/util/

as

ftp://ftp.tapr.org/tapr/dsp93/util/dsptnc.zip
ftp://ftp.tapr.org/tapr/dsp93/util/dsptnc.txt

Ron W5RKN

also:
rparsons@bga.com

16. Re: [DSP-93:2273] New DSPLOAD for PacComm TNC for DSP-93

From: fperkins@onramp.net
Date: Tue, 25 Jun 1996 19:56:25 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199606260056.TAA19005@mailhost.onramp.net>
Rendered body type: text/plain

Hi Ron et all,

Not to rain on anybody's parade, but I think the crystal mod will
cause the following applications problems:

        the APT demods
        the AO-13, etc. telemetry demods

73 Frank WB5IPM

17. Download Problems

From: Arthur Mercer <amercer@calvin.stemnet.nf.ca>
Date: Tue, 25 Jun 1996 23:32:13 -0230
To: dsp-93@tapr.org
Message-ID: <199606260202.XAA28453@calvin.stemnet.nf.ca>
Rendered body type: text/plain

Hi Mark and Ron and all,

I have installed the latest version eprom, version 2.17 and the latest
software release # 2 6/5/95 and also borrowed another tnc to temporarily
replace the pk-232, an MFJ 1278 and it has a 20 pin male header
(modem disconnect) on the board, so I have it jumpered out per
your last note to me. With a five wire cable to the db25 connector
and then to the DSP-93 tnc header. I have five volts from pin 3
of the header jumpered to pins: 7,14,16, & 18 for the 2.17 eproms.
So instead of everything working like it should, I now have a new
problem. I cannot download any file to the DSP93. I get a window
saying: communication error check the serial cable. The cable is
okay and I have plus 10 volts on pin 6 of DB9 cable on the board
of the DSP93. The modem comes on and resets itself and will manually
reset when you press the reset button but no input or output from

the monitor. I tried the old eproms but it still wouldn't download.
Can you please help me out here. This fall will be two years since
I built this kit and I still as yet cannot get it to work hi. Just
one setback after another.
                                        Thanks, Bill VO1OR

PS With DSP-93 loaded in and DSP-93 modem turned on, the pins and
voltages on the serial connector board are:

pin 2 +2.5v (rx)
pin 3 -10.75 (tx)
pin 4 0   (dtr)
pin 6 0   (dsr)
pin 7 +10.42 (rts)
pin 8 0.18 (cts) Shouldn't it be high to communicate?

(cable checks out OK)

Tnx again.

18. Re: [DSP-93:2274] Re: New DSPLOAD for PacComm TNC for DSP-93

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Tue, 25 Jun 1996 21:27:43 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b00adf64fb7723d@[204.251.33.7]>
Rendered body type: text/plain

>Hi Ron et all,
>
>Not to rain on anybody's parade, but I think the crystal mod will
>cause the following applications problems:
>
>   the APT demods
>   the AO-13, etc. telemetry demods
>
>73 Frank WB5IPM
>

I agree. The 19200 --> 9600 is not a cure all, nor should you do it without
parental permission. However, it does greatly improve the PASSTHRU output
capabilities of the DSP-93 in situations that the "fix" does not cause
problems.

The two "fixes" in my memo are independent of each other. Choose one or the
other or both.

Ron W5RKN

also:
rparsons@bga.com

19. Re: [DSP-93:2274] Re: New DSPLOAD for PacComm TNC for DSP-93

From: "L. J. Shepherd" <ljs@west.net>
Date: Tue, 25 Jun 1996 21:41:49 -0700
To: dsp-93@tapr.org
Message-ID: <199606260441.VAA12006@acme.sb.west.net>
Rendered body type: text/plain

Frank: On a different topic.....any progress to report in getting the
transmit function operational on your hf modem program ?   JIM   K6OYY

At 08:10 PM 6/25/96 -0500, you wrote:
>Hi Ron et all,
>
>Not to rain on anybody's parade, but I think the crystal mod will
>cause the following applications problems:
>
>   the APT demods
>   the AO-13, etc. telemetry demods
>
>73 Frank WB5IPM
>
>

>
>

20. Re: [DSP-93:2275] Download Problems

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Wed, 26 Jun 1996 11:01:40 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b02adf70f15a028@[204.251.33.93]>
Rendered body type: text/plain

Troubleshooting hints for the DSP-93.

1. When you power-on or press the Reset switch, does LED 1 flash a couple times?

2. When you press Reset, does JP202-1 go low?

3. When you press Reset, does JP201-3 pulse?
If yes, this means data (the asterisk) is coming out of the UART.

4. When you type a character on the keyboard, does JP201-1 pulse?
If no, this means you are not getting data from the computer into the UART.

5. Is the logic level of JP201-19 low?

6. When you press Reset, does JP203-11 pulse?

7. Does JP203-15 continuously pulse?

Trace the data through U211. The connection paths are via the following pin
pairs:

TD 2-15
RD 3-14
DCD 5-12
RTS 6-11
CTS 7-10
DTR 4-13

When connected to D93WE and working, I get for U211:
1-H
2-L
3-L
4-H
5-L
6-H
7-L
8-L

Ron W5RKN

>Hi Mark and Ron and all,
>
>I have installed the latest version eprom, version 2.17 and the latest
>software release # 2 6/5/95 and also borrowed another tnc to temporarily
>replace the pk-232, an MFJ 1278 and it has a 20 pin male header
>(modem disconnect) on the board, so I have it jumpered out per
>your last note to me. With a five wire cable to the db25 connector
>and then to the DSP-93 tnc header. I have five volts from pin 3
>of the header jumpered to pins: 7,14,16, & 18 for the 2.17 eproms.
>So instead of everything working like it should, I now have a new
>problem. I cannot download any file to the DSP93. I get a window
>saying: communication error check the serial cable. The cable is
>okay and I have plus 10 volts on pin 6 of DB9 cable on the board
>of the DSP93. The modem comes on and resets itself and will manually
>reset when you press the reset button but no input or output from
>the monitor. I tried the old eproms but it still wouldn't download.
>Can you please help me out here. This fall will be two years since
>I built this kit and I still as yet cannot get it to work hi. Just
>one setback after another.
> Thanks, Bill VO1OR
>
>
>PS With DSP-93 loaded in and DSP-93 modem turned on, the pins and
>voltages on the serial connector board are:
>

>pin 2 +2.5v (rx)
>pin 3 -10.75 (tx)
>pin 4 0   (dtr)
>pin 6 0   (dsr)
>pin 7 +10.42 (rts)
>pin 8 0.18 (cts) Shouldn't it be high to communicate?
>
>(cable checks out OK)
>
>Tnx again.

21. UO-11 modem for DSP-93??

From: Analysis Tech <info@analysistech.com>
Date: Fri, 28 Jun 1996 12:07:36 -0400 (EDT)
To: dsp-93@tapr.org
Message-ID: <2.2.16.19960628025943.38e712d8@usa1.com>
Rendered body type: text/plain

Hi All. I'm pretty sure that I remember seeing something about a UO-11
modem for the DSP-93 a while back. Unfortunately, I don't remember the name
of the file, and I could not find one with a name that was obviously it.
Can someone point me to this file. Thanks and best 73's

John KA1JMF

22. Re: [DSP-93:2279] UO-11 modem for DSP-93??

From: jtn@te-cats.COM (John T. Nogatch)
Date: Fri, 28 Jun 1996 10:34:28 -0700
To: dsp-93@tapr.org
Message-ID: <9606281734.AA07904@te-cats.COM>
Rendered body type: text/plain

> Hi All. I'm pretty sure that I remember seeing something about a UO-11
> modem for the DSP-93 a while back. Unfortunately, I don't remember the name
> of the file, and I could not find one with a name that was obviously it.
> Can someone point me to this file. Thanks and best 73's
>
> John KA1JMF
>

  UO93T1/2   UO-11 1200 bps telemetry decoder WB5IPM

This was listed in a posting, dated 11 Dec 1995, from:
    "Mark L. Hammond" <hammond@camel.campbell.edu>

+------------------------------+
| John AC6SL   jtn@te-cats.com |
+------------------------------+

23. Re: [DSP-93:2277] Re: New DSPLOAD for PacComm TNC for DSP-93

From: fperkins@onramp.net
Date: Fri, 28 Jun 1996 19:21:45 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199606290021.TAA13456@mailhost.onramp.net>
Rendered body type: text/plain

Hi Jim,

Sorry, still waiting for a resolution in the hardware/firmware.

73 Frank WB5IPM

24. Re: [DSP-93:2281] Re: New DSPLOAD for PacComm TNC for DSP-93

From: "L. J. Shepherd" <ljs@west.net>
Date: Sat, 29 Jun 1996 10:17:31 -0700
To: dsp-93@tapr.org
Message-ID: <199606291717.KAA29653@acme.sb.west.net>
Rendered body type: text/plain

Frank: thanks for the reply......I will see if Ron has an update.......I
assume Ron (W5RKN) is the resident hardware person.   JIM K6OYY

At 07:31 PM 6/28/96 -0500, you wrote:
>Hi Jim,
>
>Sorry, still waiting for a resolution in the hardware/firmware.

```
>
>73 Frank WB5IPM
>
>
>
```

July 1996

Original source file: dsp.9607
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9607

1. PC-DSP and PC-SIM for Windows - TAPR Group Purchase

```
From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 2 Jul 1996 00:08:39 -0500 (CDT)
To: tapr-bb@tapr.org (TAPR-BB mailing), hfsig@tapr.org (HF SIG mailing),
        dsp-93@tapr.org (DSP-93 Build)
Cc: psr@tapr.org (PSR)
Message-ID: <199607020508.AAA14429@tapr.org>
Rendered body type: text/plain
```

PC-DSP and PC-SIM for Windows - TAPR Group Purchase

For the past several months, the subject of digital signal processing has been discussed on the TAPR DSP-93 and HFSIG e-mail lists. Software designed to facilitate the further learning and modeling of DSP entities has also been discussed (PC-DSP). Mention was made of a DSP course utilizing a text and a program called PC-DSP. The text is aptly named "Digital Signal Processing-A Laboratory Approach Using PC-DSP" by Oktay Alkin, PhD.

Jim Kauten, KO4RQ, checked with PC Solutions, the developer of the software, and it was discovered that a Windows version is available. There are versions available for Win 3.1x, Win NT, and Win 95.

After discussion with PC Solutions, they are willing to give a volume discount if there is enough interest. Jim announced the offer several weeks ago and approximately 30 people expressed an interest. Based on this interest TAPR will do a group purchase.

The cost per unit for either the PC-SIM or PC-DSP (for Windows) package will be $220.00 US plus $6 shipping/handling (*). The normal price is $256 + s/h from PC Solutions. A savings of $30+ for all those involved in the group purchase.

21 orders must be placed with Dorothy at the TAPR office before the purchase will be made. These are orders (i.e. check, MO, or Visa/MC). This is not a call to generate a list that will be contacted at some future time. As with past group purchases, monies collected for the purchase will not be deposited until the order is placed.

This information is available at:
     http://www.tapr.org/tapr/html/dsp93.html

Overview:

The PC-DSP is an interactive, menu-driven software package used for: waveform synthesis using a variety of methods, basic signal operation, fast Fourier transforms, convolution and correlation, solution of difference equations, analysis and design of IIR and FIR filters, digital filter simulation and code generation, and power spectrum estimation using classical and modern techniques. Some key features of PC-DSP listed include: GNUPLOT support, code generation, macro compiler, dialog compiler, sound file support, data file formats, and compatibility with PC-SIM.

PC-SIM is described as a continuous- and discrete-time simulator that is used for time-domain simulation of systems described by block diagrams. It was designed to be a flexible and open-ended tool to allow simulation of a broad range of systems encountered in communications, signal processing, and control theory. Some of the key features mentioned include: pre-defined components, code generation, sound file support, and compatibility with PC-DSP.

Demo versions of both programs are available from the PC Solutions web site: http://www.dspsolutions.com.

Information regarding the software should be directed to Jim Kauten, MD, KO4RQ (kauten@mindspring.com).

Orders for software should be directed to the TAPR office tapr@tapr.org

TAPR would like to thank Jim, KO4RQ, for his effort in organizing this
purchase.

TAPR
8987-309 E. Tanque Verde Rd., #337
Tucson, AZ 85749-9399

Office: 817-383-0000
Fax: 817-566-2544
E-mail: TAPR@TAPR.ORG

Office Hours: Tue - Fri, 9am - 12noon & 3pm - 5pm Central Time

(*) Note: There will be no 10% membership discount on this purchase.

July 2nd, 1996

2. Update on PC-DSP and PC-SIM Group Purchase

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 2 Jul 1996 23:00:17 -0500 (CDT)
To: dsp-93@tapr.org (DSP-93 Build), hfsig@tapr.org (HF SIG mailing),
tapr-bb@tapr.org (TAPR-BB mailing), psr@tapr.org (PSR)
Message-ID: <199607030400.XAA15843@tapr.org>
Rendered body type: text/plain

Update on TAPR Group Purchase of the PC-DSP and PC-SIM software. It was
unclear in the first posting that this was indeed a software bundle. Sorry
for any problems this might have caused.

We received 5 orders just today at the TAPR office -- so get those orders
rolling!

PC-DSP and PC-SIM for Windows (bundle) - TAPR Group Purchase

For the past several months, the subject of digital signal processing has
been discussed on the TAPR DSP-93 and HFSIG e-mail lists. Software designed
to facilitate the further learning and modeling of DSP entities has also
been discussed (PC-DSP). Mention was made of a DSP course utilizing a text
and a program called PC-DSP. The text is aptly named "Digital Signal
Processing-A Laboratory Approach Using PC-DSP" by Oktay Alkin, PhD.

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and it was discovered that a Windows version is available. There are
versions available for Win 3.1x, Win NT, and Win 95.

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discount if there is enough interest. Jim announced the offer several weeks
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deposited until the order is placed.

This information is available at:
http://www.tapr.org/tapr/html/dsp93.html

Overview:

The PC-DSP is an interactive, menu-driven software package used for:
waveform synthesis using a variety of methods, basic signal operation, fast

Fourier transforms, convolution and correlation, solution of difference equations, analysis and design of IIR and FIR filters, digital filter simulation and code generation, and power spectrum estimation using classical and modern techniques. Some key features of PC-DSP listed include: GNUPLOT support, code generation, macro compiler, dialog compiler, sound file support, data file formats, and compatibility with PC-SIM.

PC-SIM is described as a continuous- and discrete-time simulator that is used for time-domain simulation of systems described by block diagrams. It was designed to be a flexible and open-ended tool to allow simulation of a broad range of systems encountered in communications, signal processing, and control theory. Some of the key features mentioned include: pre-defined components, code generation, sound file support, and compatibility with PC-DSP.

Demo versions of both programs are available from the PC Solutions web site: http://www.dspsolutions.com.

Information regarding the software should be directed to Jim Kauten, MD, KO4RQ (kauten@mindspring.com).

Orders for software should be directed to the TAPR office tapr@tapr.org

TAPR would like to thank Jim, KO4RQ, for his effort in organizing this purchase.

TAPR
8987-309 E. Tanque Verde Rd., #337
Tucson, AZ 85749-9399

Office: 817-383-0000
Fax: 817-566-2544
E-mail: TAPR@TAPR.ORG

Office Hours: Tue - Fri, 9am - 12noon & 3pm - 5pm Central Time

(*) Note: There will be no 10% membership discount on this purchase.

July 2nd, 1996

3. One more time

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 2 Jul 1996 23:21:00 -0500 (CDT)
To: dsp-93@tapr.org (DSP-93 Build), hfsig@tapr.org (HF SIG mailing)
Message-ID: <199607030421.XAA17015@tapr.org>
Rendered body type: text/plain

Just in case the last update was a little unclear -- this should be real clear for everyone :-)

Greg

The cost of the PC-SIM and PC-DSP for Windows package (includes both programs) will be $220.00 US (*). Shipping and handling will be an additional $6 for US deliveries. The standard non-discounted price for the package is $256.00, inclusive of s/h, from PC Solutions. The TAPR group purchase plan nets a savings of $30.00 for each person involved in the purchase of the software package.

21 orders must be placed with Dorothy at the TAPR office before the purchase will be made. These are orders (i.e. check, MO, or Visa/MC). This is not a call to generate a list that will be contacted at some future time. As with past group purchases, monies collected for the purchase will not be deposited until the order is placed.

This information is available at:
     http://www.tapr.org/tapr/html/dsp93.html

4. Re: [DSP-93:2284] Update on PC-DSP and PC-SIM Group Purchase

From: emedia@netcom.com (Ken McCarthy)
Date: Wed, 3 Jul 1996 08:57:57 -0700
To: dsp-93@tapr.org
Message-ID: <199607031557.IAA07825@netcom.netcom.com>
Rendered body type: text/plain

Please stop sending messages to the domain:

networld.com an/or
e-media.com

They are unsolicited and unwelcome. If someone gave you
these domains as part of their address, they are in
error:

Message 3:
>From dsp-93@tapr.org Tue Jul 2 21:28:30 1996
Return-Path: <dsp-93@tapr.org>
Received: from moon.nbn.com (moon.nbn.com [199.4.65.1]) by mail5 (8.6.13/Netcom)
        id VAA06776; Tue, 2 Jul 1996 21:28:29 -0700
Received: from tapr.org ([204.17.217.20]) by moon.nbn.com (8.7.3/8.7.3) with ESM
TP id VAA13404 for <mdkosta@networld.com>; Tue, 2 Jul 1996 21:28:28 -0700 (PDT)
Received: from tapr.org (localhost [127.0.0.1]) by tapr.org (8.7.5/8.7.3/1.9) wi
th SMTP id XAA16606; Tue, 2 Jul 1996 23:11:39 -0500 (CDT)
Date: Tue, 2 Jul 1996 23:11:39 -0500 (CDT)
Message-Id: <199607030400.XAA15843@tapr.org>
Reply-To: dsp-93@tapr.org
Originator: dsp-93@tapr.org
Sender: dsp-93@tapr.org
Precedence: bulk
From: Greg Jones <wd5ivd@tapr.org>
To: dsp-93@tapr.org
Subject: [DSP-93:2284] Update on PC-DSP and PC-SIM Group Purchase
X-Listprocessor-Version: 6.0 -- ListProcessor by Anastasios Kotsikonas
X-Comment: Tucson Amateur Packet Radio DSP-93 Kit SIG
Content-Type: text
X-Mailer: ELM [version 2.4 PL25]
Status: R

Update on TAPR Group Purchase of the PC-DSP and PC-SIM software. It was
unclear in the first posting that this was indeed a software bundle. Sorry
for any problems this might have caused.

We received 5 orders just today at the TAPR office -- so get those orders
rolling!

PC-DSP and PC-SIM for Windows (bundle) - TAPR Group Purchase

For the past several months, the subject of digital signal processing has
been discussed on the TAPR DSP-93 and HFSIG e-mail lists. Software designed
to facilitate the further learning and modeling of DSP entities has also
been discussed (PC-DSP). Mention was made of a DSP course utilizing a text
and a program called PC-DSP. The text is aptly named "Digital Signal
Processing-A Laboratory Approach Using PC-DSP" by Oktay Alkin, PhD.

Jim Kauten, KO4RQ, checked with PC Solutions, the developer of the software,
and it was discovered that a Windows version is available. There are
versions available for Win 3.1x, Win NT, and Win 95.

After discussion with PC Solutions, they are willing to give a volume
discount if there is enough interest. Jim announced the offer several weeks
ago and approximately 30 people expressed an interest. Based on this
interest TAPR will do a group purchase.

The cost for the software bundle (PC-SIM and PC-DSP (for Windows)) will be
$220.00 US plus $6 shipping/handling (*). The normal price is $256 with s/h
from PC Solutions. A savings of $30 for all those involved in the group
purchase.

21 orders must be placed with Dorothy at the TAPR office before the
purchase will be made. These are orders (i.e. check, MO, or Visa/MC). This
is not a call to generate a list that will be contacted at some future time.
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This information is available at:

http://www.tapr.org/tapr/html/dsp93.html

Overview:

The PC-DSP is an interactive, menu-driven software package used for:
waveform synthesis using a variety of methods, basic signal operation, fast
Fourier transforms, convolution and correlation, solution of difference
equations, analysis and design of IIR and FIR filters, digital filter
simulation and code generation, and power spectrum estimation using
classical and modern techniques. Some key features of PC-DSP listed
include: GNUPLOT support, code generation, macro compiler, dialog compiler,
sound file support, data file formats, and compatibility with PC-SIM.

PC-SIM is described as a continuous- and discrete-time simulator that is
used for time-domain simulation of systems described by block diagrams. It
was designed to be a flexible and open-ended tool to allow simulation of a
broad range of systems encountered in communications, signal processing, and
control theory. Some of the key features mentioned include: pre-defined
components, code generation, sound file support, and compatibility with
PC-DSP.

Demo versions of both programs are available from the PC Solutions web site:
http://www.dspsolutions.com.

Information regarding the software should be directed to Jim Kauten, MD,
KO4RQ (kauten@mindspring.com).

Orders for software should be directed to the TAPR office tapr@tapr.org

TAPR would like to thank Jim, KO4RQ, for his effort in organizing this
purchase.

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Office Hours: Tue - Fri, 9am - 12noon & 3pm - 5pm Central Time

(*) Note: There will be no 10% membership discount on this purchase.

July 2nd, 1996

5. Re: Download Problems

From: Arthur Mercer <amercer@calvin.stemnet.nf.ca>
Date: Sat, 6 Jul 1996 21:36:11 -0230
To: dsp-93@tapr.org
Message-ID: <199607070006.VAA19095@calvin.stemnet.nf.ca>
Rendered body type: text/plain

"James R. Kauten, M.D." <kauten@mindspring.com> writes:
> Have just received a quote from DSP Solutions as listed below. Presently we
> have approximately 12-15 people interested and hopefully this will increase
> once the notice is published in the TAPR PSR and after Dayton. I will keep
> you informed as to the progress. Greg Jones could perhaps look at these
> prices and determine whether it is feasible for these to be purchased thru
> TAPR. I would be willing to write them a check for my copy of the programs
> if it would keep processing cost down:
>
> >Dear Dr. Kauten:
> >
> >Thank you again for your interest in DSP Solutions products. As I have
> >indicated in my previous message, the single-copy price of the Windows
> >bundle is $249. We can offer the following discounts for bulk purchases:
> >

> >Quantity   Discount   Price per copy
> >
> > 6-10   10% $ 224.10
> >11-20   15% $ 211.65
> >21-40   20% $ 199.20
> >41-60   25% $ 186.75
> >61 or more   30% $ 174.30
> >
> >We have not yet determined the pricing for developers' editions. PC-SIM
> >developers' edition will be released shortly, and the PC-DSP developers'
> >edition will be released about six weeks after that. The pricing will be
> >determined at the time the software is released. We will offer special
> >upgrade pricing for owners of standard editions. We can also offer
> >discounts for bulk purchases similar to the above discount structure.
> >
> >Please let me know if I may provide more information.
> >
> >Sincerely,
> >
> >Oktay Alkin, Ph.D.
> >DSP Solutions
> >oalkin@dspsolutions.com
>
> 73, Tnx fer ur patience.
>
> Jim, KO4RQ
> ==
> James R. Kauten, M.D., KO4RQ (kauten@mindspring.com)
> ==
> Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
> Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
>   Atlanta, GA, 30305-1955
> ==
> Atlanta, Home of the 1996 Olympics!!!
> ==
>
>

6. Re: DSPLAY vs. PC-SIM

From: "In space, no one can hear you snore" <DSCHULTZ@sssp.gsfc.nasa.gov>
Date: Sun, 7 Jul 1996 19:31:07 GMT
To: dsp-93@tapr.org
Cc: DSCHULTZ@sssp.gsfc.nasa.gov
Message-ID: <960707193107.3609@sssp.gsfc.nasa.gov>
Rendered body type: text/plain

Lyle Johnson wrote (back in May):

>There is an interesting program available as freeware on the net that allows
>you to play with DSP functions. It isn't a visual plug-and-play system like
>PC/DSP and PC/SIM, but it does allow you to learn a lot, design filters and
>see their responses, etc.

>It is about 329K bytes, zipped, for PC compatibles, runs under Windows (I've
>so far only fired it up under Win95).

>It is available at "http://vega.info.isbiel.ch/~ctr/dsplay.html"

Has anyone compared this program to the PC-SIM that TAPR is getting ready
to order? Is PC-SIM so much better than this that it is worth the > $200?

Does anyone know if this program is available on an FTP site? I have tried
to download it through Netscape on the Macintoshes that we have at work,
but when I write the file to a PC compatible disk, the PC refuses to
unzip the file. So much for the claim that Mac's can write PC compatible
disks.... Could we perhaps get someone to load this on TAPR's ftp site
so that those of us who are Netscape impared can get a copy?

Dan Schultz N8FGV
n8fgv@amsat.org

7. Re: [DSP-93:2288] Re: DSPLAY vs. PC-SIM

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sun, 7 Jul 1996 15:54:40 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b00ae05d3b00034@[204.251.33.7]>
Rendered body type: text/plain

>Does anyone know if this program is available on an FTP site? I have tried
>to download it through Netscape on the Macintoshes that we have at work,
>but when I write the file to a PC compatible disk, the PC refuses to
>unzip the file. So much for the claim that Mac's can write PC compatible
>disks.... Could we perhaps get someone to load this on TAPR's ftp site
>so that those of us who are Netscape impared can get a copy?
>
>Dan Schultz N8FGV
>n8fgv@amsat.org

Used Netscape 2.0 on my Quadra 700 and unzipped there with no problem using
"StuffIt Expander" and also no problem on my 486 system.

I'll put it in the dsp93 upload directory on ftp.tapr.org and Mark can
move it to a suitable resting place.

Ron W5RKN

also:
rparsons@bga.com

8. DSPLAY location

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 07 Jul 1996 23:15:36 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19960707231536.0073c978@camel.campbell.edu>
Rendered body type: text/plain

I have created a new directory called

dsp93/simulators

where dsplay.txt and dsplay.zip can be found.

Thanks, Ron for making them easy to get!

For the "unimpaired Netscape weenies" try:

ftp://ftp.tapr.org/tapr/dsp93/simulators/dsplay.zip
and
ftp://ftp.tapr.org/tapr/dsp93/simulators/dsplay.txt

>Used Netscape 2.0 on my Quadra 700 and unzipped there with no problem using
>"StuffIt Expander" and also no problem on my 486 system.
>
>I'll put it in the dsp93 upload directory on ftp.tapr.org and Mark can
>move it to a suitable resting place.
>
>
>Ron W5RKN
>
>also:
>rparsons@bga.com
>
>
>
>

Mark L. Hammond   [KC4EBR]

9. 1200 PSK on DSP-93

From: "Stacey E. Mills, M.D." <sem2r@galen.med.virginia.edu>
Date: Tue, 16 Jul 1996 15:09:45 -0400
To: dsp-93@tapr.org
Cc: "Stacey E. Mills" <sem2r@virginia.edu>
Message-ID: <199607161909.PAA92287@avery.med.Virginia.EDU>
Rendered body type: text/plain

Dear Group,
     I've got my DSP-93 functioning well on the 9600 baud sats and I'd like
to set it up to work AO-16. Which of the multiple 1200 baud PSK *.obj files
seems to work "best" with AO-16? I would like to use the up/down step
function with the modem, as well.

Any hints appreciated!

Thanks.

Stacey E. Mills
E-Mail: sem2r@galen.med.virginia.edu
Office Phone: 804-982-4406
Office Fax: 804-924-8767

10. ACARS with dsp-93?

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sat, 27 Jul 1996 01:22:41 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19960727012241.0066ddcc@camel.campbell.edu>
Rendered body type: text/plain

Hi Gang,

Does anybody know if there is any code in development for ACARS (airplane
packet stuff)?

I've been hearing a little about it, and was wondering...

Mark L. Hammond   [KC4EBR]

11. Re: [DSP-93:2292] ACARS with dsp-93?

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Fri, 26 Jul 1996 21:30:04 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b00ae1f2f83592f@[204.251.33.23]>
Rendered body type: text/plain

>Hi Gang,
>
>Does anybody know if there is any code in development for ACARS (airplane
>packet stuff)?
>
>I've been hearing a little about it, and was wondering...
>
>
>Mark L. Hammond   [KC4EBR]

>From the APRS documentation files:

ACARS.txt   AIRLINE TRACKING WITH APRSair.exe

Some TNC's have modems for extracting the airline company packets on the
aircraft VHF band. APRSair.exe will monitor such a TNC on its
SECOND comm port and do the following additional functions:

   All ACARS packets are added to the L-LIST
   The standard ACARS paceket header will be placed on the D-LIST
   If a LAT/LONG string is recognized, it will be placed on the P-LIST
      and plotted on the map.

    I am only looking for N, S, E and W with the right number of characters
to assume a POSIT, I cannot tell if it is good or what the POSIT means.
They may be the current location of the aircraft or future Waypoints. For
now, I just plot them all as aircraft until I learn more about this new
system. Also I currently do not know how to compute the checksum and these
packets are usually full of errors. I filter out all control characters
and convert them to a "*" so that they do not trash up the screens. If you
have any details to help in this effort, please forward them to me.

BE SURE TO KEEP THE VOLUME LOW and the SQUELCH OPEN. If the volume is too
high, then NOISE will look like packets!

Unregistered users of APRSair will only see the latest single data packet.
Registered APRS users will see ONE PAGE of such plots. If you want to
see more than just the one page, you must be a fully registered APRS user
with the DF/DR option...

   Since the ACARS TNC is on the second COMM port, normal APRS operations
can continue on the first COMM port. You can use the P-LIST to HOOK and
UPLINK selected aircraft to the APRS net.. The following is additional
information provided by PA0DAL:

Harderwijk The Netherlands
Date : 31 January 1996
>From : PAODAL
To   : acars @ ww

Herewith a short description of the ACARS messages and what seems
to be the defacto message frame decoding standard adopted by both AEA
and LOWE, (it may be even follow the ARINC characteristic 597-5).

ACARS-Frequencies

Europe   131.725
US.   131.550,130.025,129.125 MHz
Asia   131.450
Air Canada 131.475

            INTRODUCTION to ACARS

 "Aircraft Communications Adressing and Reporting System"

For Ham radio operators an SWL's, ACARS can be regarded as a
commercial type of packet radio communications. The ACARS sig-
nal uses a 2400 baud message data bit stream to differentially
AM modulate the transmitter carrier using 1200 and 2400 Hz tones.

A 1200 Hz tone idicates a bit change from the previous bit and a
2400 Hz tone indicates there was no bit change. AM modulation is
used, a practice consitent with the historical use of AM voice
mode on the aircraft bans sinds the early days of radio.
The signal is phase coherent.

Each message frame consists of at least 50, and up to a maximum
of 272 characters or bytes. Each charachter uses a 7 bit ACSII code
with an additional eighth parity bit. This results in a total message
transmission duration of between 0.17 and 0.91 seconds.

The message frame format is rigidly defined to include synchroni-
zation, address, acknowledgment, mode and error checking characters,
in addition to the actual message text. Imbedded message label charac-
ters indicate the type of message. The exact message format is shown
below, the higlighted characters represent parts of the message that
AEA ACARS actually displays on the screen and/or saves to disk (most
others are nonprinting characters):

	#characters	Purpose	Comments
	16	Pre-key	Xmitter warm-up/Rx AGC adjustment
	2	Bit sync	establish bit synchronisation
	2	character sync	establish character synch
	1	SOH	indicate start of message
*	1	Mode	ground system interface configuration
*	7	Address	aircraft resgistration number
	1	Ack/Nak	acknowledge/non-acknowledge marker
*	2	Label	type of message
*	1	Block ID	message block number
	1	STX	indicates start of message text
*	4	Sequence#	message sequence number**
*	6	Flight number	airline flight number**
*	210	Text	message text
	1	ETX	indicates end of text
	16	Block Check Seq	error dedection polynominal value
	1	BCS suffix last character	

 *)highlighted text
**)air-ground message only
t
The sixteen pre-key characters ar all binary 1 values, resulting in
the 0.05 second 2400 Hz beep you hear at the start of every message.
The Block Check Sequence field contains the value of an error dedection
polynominal that can be used to determine if the entire message was re-
ceived free of errors. detailed documents nored in the Reference section
of thes manual. Although none of theACARS traffic is encrypted, most
systems include design provisions for doing so. Etc. Etc.

source: a packet radio message

73s Bert van Dalen

pa0dal @ pi8utr

12. Re: [DSP-93:2293] Re: ACARS with dsp-93?

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 28 Jul 1996 12:11:23 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19960728121123.00698da0@camel.campbell.edu>
Rendered body type: text/plain

Thanks for the information, Ron. I guess I should have stated my question a
little better--

Is there any ACARS modem code being developed for the DSP-93 so that we can
decode the ACARS packets?

Or is that a silly question (for example, will the hardware in our MFJ-1270C
be able to deal with what the DSP-93 shoots it)?

At 21:43 7/26/96 -0500, you wrote:
>>Hi Gang,
>>
>>Does anybody know if there is any code in development for ACARS (airplane
>>packet stuff)?
>>
>>I've been hearing a little about it, and was wondering...
>>
>>
>>Mark L. Hammond   [KC4EBR]
>
>
>>From the APRS documentation files:

Mark L. Hammond   [KC4EBR]

13. Re: [DSP-93:2294] Re: ACARS with dsp-93?

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Sun, 28 Jul 1996 09:43:25 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b01ae212bf6cd62@[204.251.33.5]>
Rendered body type: text/plain

>Thanks for the information, Ron. I guess I should have stated my question a
>little better--
>
>Is there any ACARS modem code being developed for the DSP-93 so that we can
>decode the ACARS packets?
>
>Or is that a silly question (for example, will the hardware in our MFJ-1270C
>be able to deal with what the DSP-93 shoots it)?
>

Actually, the doc is all that I know about the subject. A 2400 bps DSP-93
modem would be a good project for you :-)

The 1200 modem would probably a be a good starting point.

Ron W5RKN

14. Re: [DSP-93:2278] Re: Download Problems

From: Arthur Mercer <amercer@calvin.stemnet.nf.ca>
Date: Tue, 30 Jul 1996 22:19:01 -0230
To: dsp-93@tapr.org
Message-ID: <199607310049.WAA16822@calvin.stemnet.nf.ca>
Rendered body type: text/plain

w5rkn@amsat.org (Ronald G. Parsons) writes:
> Troubleshooting hints for the DSP-93.
>
> 1. When you power-on or press the Reset switch, does LED 1 flash a couple times?
>
     Answers to your questions for the troubleshooting hints on the DSP93:
     fOR # 1 ... Yes

```
> 2. When you press Reset, does JP202-1 go low?
>
     # 2 ... Yes when the reset button is in, its low and when you let it out
     its high   (maybe it should stay low when you press the button)

>  3. When you press Reset, does JP201-3 pulse?
> If yes, this means data (the asterisk) is coming out of the UART.
>
     # 3 ... No

> 4. When you type a character on the keyboard, does JP201-1 pulse?
> If no, this means you are not getting data from the computer into the UART.
>
     # 4 ... No

> 5. Is the logic level of JP201-19 low?
>
     # 5 ... 2.38 volts

> 6. When you press Reset, does JP203-11 pulse?
>
     # 6 ... No (no voltage)

> 7. Does JP203-15 continuously pulse?
>
     # 7 ... No (no voltage)

> Trace the data through U211. The connection paths are via the following pin
> pairs:
>
> TD      2-15
> RD      3-14
> DCD     5-12
> RTS     6-11
> CTS     7-10
> DTR     4-13
>
   Tracing the data through U211 with the DSP93 turned off:
   Connection from the serial port to the U211:
                 (using the meter)

    Serial port        U211

     RTS Pin 7 ....... Pin 6
     TX  Pin 3 ....... Pins (all)
     RX  Pin 2 ....... Pin 3 (also 6)
     CTS Pin 8 ....... Pin 7 (also 6)
     DTR Pin 4 ....... Pin 4 (also 6)
     DCD Pin 1 ....... Pin 5 (also 6)

    Didn't try a path out of U211 as I am not connected from the
    software to the DSP93.  ( I'm connected by the serial cable,
    but can't download or upload anything period.



> When connected to D93WE and working, I get for U211:
> 1-H
> 2-L
> 3-L
> 4-H
> 5-L
> 6-H
> 7-L
> 8-L
>

   Connected to D93WE (BUT NOT WORKING HI) I have for U211:

   Pin # 1 ... 4.35 volts
    "  # 2 ... -10.78
    "  # 3 ... 2.48 volts
    "  # 4 ... low
    "  # 5 ... 0.15 (low)
    "  # 6 ... 10.41 volts
    "  # 7 ... 0.15 (low)
    "  # 8 ... 0.25 (low)

   Please advise further instructions.   Thanks, Bill ... VO1OR
```

>
> Ron W5RKN
>
>
> >Hi Mark and Ron and all,
> >
> >I have installed the latest version eprom, version 2.17 and the latest
> >software release # 2 6/5/95 and also borrowed another tnc to temporarily
> >replace the pk-232, an MFJ 1278 and it has a 20 pin male header
> >(modem disconnect) on the board, so I have it jumpered out per
> >your last note to me. With a five wire cable to the db25 connector
> >and then to the DSP-93 tnc header. I have five volts from pin 3
> >of the header jumpered to pins: 7,14,16, & 18 for the 2.17 eproms.
> >So instead of everything working like it should, I now have a new
> >problem. I cannot download any file to the DSP93. I get a window
> >saying: communication error check the serial cable. The cable is
> >okay and I have plus 10 volts on pin 6 of DB9 cable on the board
> >of the DSP93. The modem comes on and resets itself and will manually
> >reset when you press the reset button but no input or output from
> >the monitor. I tried the old eproms but it still wouldn't download.
> >Can you please help me out here. This fall will be two years since
> >I built this kit and I still as yet cannot get it to work hi. Just
> >one setback after another.
> >   Thanks, Bill VO1OR
> >
> >
> >PS With DSP-93 loaded in and DSP-93 modem turned on, the pins and
> >voltages on the serial connector board are:
> >
> >pin 2 +2.5v (rx)
> >pin 3 -10.75 (tx)
> >pin 4 0   (dtr)
> >pin 6 0   (dsr)
> >pin 7 +10.42 (rts)
> >pin 8 0.18 (cts) Shouldn't it be high to communicate?
> >
> >(cable checks out OK)
> >
> >Tnx again.
>
>
>

August 1996

Original source file: dsp.9608
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9608

1. Re: [DSP-93:2198] Re: Paccomm TNC

From: Rick Meuse <n1hid@usa1.com>
Date: Fri, 02 Aug 1996 09:17:50 -0400
To: dsp-93@tapr.org
Message-ID: <1.5.4.16.19960802131750.2eb75258@usa1.com>
Rendered body type: text/plain

At 08:35 PM 5/8/96 -0500, you wrote:
>Hi Dave. Regarding your desire to automate the DSP-93/Paccomm TNC and WiSP,
>I have written 2 programs (PASSTHRU.EXE & DSPBAUD.EXE) that allow you to
>toggle the Passthru mode, and adjust the HDLC baud rate of the Paccomm TNC.
>Because they are executables, they can be executed from a batch file (or
>whatever) that can be called directly by WiSP (Schedule Events option). With
>these programs, I have been able to automatically load a desired modem to
>the DSP-93, and adjust the TNC HDLC baud rate (1200 or 9600 baud) just prior
>to a given satellite pass. I've had mine in continuous operation now for
>about 3 weeks, with only a few minor glitches! The big gotcha is that
>occasionally the Paccomm TNC loses characters during Passthru operations.
>When this happens, the modem is not loaded properly and you miss operation
>on that pass! I'm going to write a program to detect successful program load
>in the DSP-93, that will initiate a reload if the first was not successful.
>If you'd like, I'll e-mail these programs to you.
>
>John Morley KA1JMF
>
>
>At 05:06 PM 5/4/96 -0500, you wrote:
>>David MEDLEY wrote:
>>>
>>> I would like to hear from anybody using the new PACCOMM TNC with
>>> the DSP-93.
>>> Dave KI6QE
>>>
>>> David MedleyHi Dave,
>>
>>As one old friend to another I found the TNC to be an exercise
>>in total futility. Wisp/AFSK/PSK automation CANNOT be achieved due to
>>PACCOM menu method of baud change and I am not sure as to whether they
>>ever fixed the serial errors with their passthru command.
>>
>>I understood that WORKING firmware would be distributed LATER???
>>
>>
>>I am still using the G3RUH\PSK1\Tiny-2 automatic combo I developed
>>for the Satgate system which has run uninterupted 24 hours a day for
>>three years.
>>
>>Take care there
>>
>>Dave
>>
>>
>
>
Has anyone found these files??..I've been in contact with John (KA1JMF) but
he as of yet hasn't uploaded them to the TAPR DSP-93 dir..Wonder if anyone
out there has them to send to me???...

Rick N1HID

2. Re: [DSP-93:2198] Re: Paccomm TNC

From: Rick Meuse <n1hid@usa1.com>
Date: Fri, 02 Aug 1996 14:23:56 -0400
To: dsp-93@tapr.org
Message-ID: <1.5.4.16.19960802182356.2eff43be@usa1.com>
Rendered body type: text/plain

At 08:35 PM 5/8/96 -0500, you wrote:
>Hi Dave. Regarding your desire to automate the DSP-93/Paccomm TNC and WiSP,
>I have written 2 programs (PASSTHRU.EXE & DSPBAUD.EXE) that allow you to
>toggle the Passthru mode, and adjust the HDLC baud rate of the Paccomm TNC.
>Because they are executables, they can be executed from a batch file (or
>whatever) that can be called directly by WiSP (Schedule Events option). With

>these programs, I have been able to automatically load a desired modem to
>the DSP-93, and adjust the TNC HDLC baud rate (1200 or 9600 baud) just prior
>to a given satellite pass. I've had mine in continuous operation now for
>about 3 weeks, with only a few minor glitches! The big gotcha is that
>occasionally the Paccomm TNC loses characters during Passthru operations.
>When this happens, the modem is not loaded properly and you miss operation
>on that pass! I'm going to write a program to detect successful program load
>in the DSP-93, that will initiate a reload if the first was not successful.
>If you'd like, I'll e-mail these programs to you.
>
>John Morley KA1JMF

>Has anyone found these files??..I've been in contact with John (KA1JMF) but
he >as of yet hasn't uploaded them to the TAPR DSP-93 dir..Wonder if anyone
out >there has them to send to me???...
>
>Rick N1HID

I found the files in the DSP93/UTILS dir..

Thanks,

Rick

3. unsubscribe

From: griedman@mail.awinc.com (G.Riedmann)
Date: Fri, 02 Aug 1996 13:36:33 -0600
To: dsp-93@tapr.org
Message-ID: <m0umTEW-00029vC@mail.awinc.com>
Rendered body type: text/plain

[Empty message body]

4. Serial IO from TNC TTL

From: Doug Hutton <Doug.Hutton@postoffice.worldnet.att.net>
Date: Tue, 13 Aug 1996 13:38:38 -0500
To: dsp-93@tapr.org
Message-ID: <3210CBAE.3C69@postoffice.worldnet.att.net>
Rendered body type: text/plain

Can someone tell me exactly how to attach a serial IO connector to the
TNC TTL interface of the DSP-93?

I'm sure that level shifting and possibly inversion is required, but I'm
not good enuff w/hardware to do it. I have a MAX233 coming from
Digi-Key, if that would help.

Thanks,

Doug, W5JUV

5. Re: [DSP-93:2300] Serial IO from TNC TTL

From: w5rkn@amsat.org (Ronald G. Parsons)
Date: Tue, 13 Aug 1996 14:59:13 -0500
To: dsp-93@tapr.org
Message-ID: <v02140b03ae368e748ab7@[204.251.33.83]>
Rendered body type: text/plain

>Can someone tell me exactly how to attach a serial IO connector to the
>TNC TTL interface of the DSP-93?
>
>I'm sure that level shifting and possibly inversion is required, but I'm
>not good enuff w/hardware to do it. I have a MAX233 coming from
>Digi-Key, if that would help.
>
>Thanks,
>
>Doug, W5JUV

Why would you want to do this? The TNC connector is designed to connect to
a Modem Disconnect Header (MDH) of a TAPR-2 clone or other TNC with an MDH.

This is not a serial, i.e., RS-232, etc. interface.

Ron W5RKN

6. TAPR offers Motorola EVM56002 group purchase

```
From: Greg Jones <wd5ivd@tapr.org>
Date: Fri, 16 Aug 1996 12:22:26 -0500 (CDT)
To: tapr-bb@tapr.org (TAPR-BB mailing),
        amsat-bb@amsat.org (AMSAT BB Mail Group),
        hfsig@tapr.org (HF SIG mailing), dsp-93@tapr.org (DSP-93 Build)
Message-ID: <199608161722.MAA09958@tapr.org>
Rendered body type: text/plain
```

TAPR offers Motorola EVM56002 group purchase 8/15/96

TAPR and Motorola have agreed on a special group purchase of the Motorola DSP56002 Evaluation Modules (EVM) for a limited time. The DSP56002 EVM is a general purpose DSP board with on board peripherals and software for assembling and debugging code. TAPR would like to thank Tim Baggett, AA5DF, of Motorola for facilitating this purchase.

The price will be:
$85.00 US (+ s/h) **

The EVM56002 normally retails through distributors for $150.

** No 10% Discount for TAPR Members.
Due to the nature of the purchase, TAPR cannot offer a membership discount.

For more information on the DSP56002EVM purchase, please see the TAPR web page at http://www.tapr.org

For more information on the DSP56002 EVM and Motorola DSP products visit the Motorola DSP web page at http://www.motorola-dsp.com.

Please note: This unit provides a minimum interface for radio connections. Additional circuits are required for specific radio interfaces based on the application. See the TAPR HF SIG Upload Area (ftp.tapr.org /tapr/SIG/hfsig/upload) for files on one type of radio interface. There are other units that provide complete radio interfaces and should be considered if you feel that you are not capable of building such items.

This EVM group purchase will include:

* EVM56002 Board
  See below for specs.

* Motorola's DSP56000 cross assembler
* Domain Technologies' debug GUI debug software (DOS, >386 CPU)
  both communicates with the EVM over an RS232 serial port

* Available amateur software developed for the 56002 EVM board

* Documentation
  56000 Family Manual,
  56002 User's Manual,
  56002 Data Sheet,
  Quickstart Guide,
  Debugger manual, and
  Schematics

TAPR will be taking orders for up to 200 units.

Orders will be taken through the ARRL/TAPR Digital Communications Conference in Seattle on September 21-22, 1996.

Shipping will not begin until the units are delivered from Motorola, which will be sometime after September 22nd. Money will be deposited when the order is placed with Motorola.

If you would like to order one of these units, you can
e-mail tapr@tapr.org,
phone (817) 383-0000, or
fax (817) 566-2544.

Office Hours: Tuesday - Friday 9am - 12pm, 3pm - 5pm Central Time

Questions concerning the unit and details on the buy will be handled on the TAPR DSP-93 Special Interest Group list. To subscribe, send e-mail to listserv@tapr.org. In the message type subscribe dsp93 YourFirstName YourLastName. The server will then send you a message back. Announcements on the status of the shipment will be made to the TAPR DSP-93 list and TAPR-BB lists.

Shipping and Handling
---

* Shipping and Handling within the US will be $10.00 US
by UPS Ground unless otherwise requested by purchaser.

* International Shipping will need to contact the TAPR office and get a quote on the shipping to your country. TAPR uses International Express Mail, unless the purchaser requires something else.

General Information

The DSP56002EVM is based on the 56002 general purpose DSP by Motorola. The 56002 is a 24-bit precision, dual memory space harvard architecture digital signal processor. The board contains a stereo CD-quality audio codec, on-board 32k words external SRAM, and an expansion spot for a 32K flash EEPROM. The user only needs to supply the IBM PC compatible computer, a 7-9 volt AC or DC power supply, and an RS232 cable for interfacing to the PC.

The DSP56002 EVM is perfect for the hobbyist and student wishing to learn DSP programming on the Motorola 56002 DSP. Many amateur radio applications have been written and used on the DSP56002 EVM including, 1200 AFSK packet, 9600 FSK packet, RTTY, BPSK, QPSK, and various audio filters for CW, SSB, and QRM/QRN reduction.

The 24-bit DSP56002 feature:

- 40 MHz operation (new EVM's are 6 MHZ, and most have operated at much higher clock rates)
- 20 MIPS at 40 MHz (50 nS instruction cycle at 40 MHz)
- 120 Million Operations per second (MOPS) at 40 MHz
- 512x24 bit on-chip program RAM with bootstrap ROM
- two 256x24 bit on-chip data RAMs (X and Y data spaces)
- External memory expansion with 16 bit address and 24 bit data bus
- Byte wide host interface
- Synchronous Serial Interface (SSI)
- Serial Communications Interface (SCI)
- 24-bit timer/event counter
- software programmable internal clock PLL

The EVM features:

- 32kx24 bit zero wait-state external SRAM
- option for 32Kx8 flash EEPROM for program bootstrapping and stand-alone operation
- Crystal Semiconductor's CS4215 stereo CD quality sigma-delta A/D D/A
- on-board voltage regulator
- RS232 interface to the OnCE (tm) controller
- RS232 interface to the DSP SCI port for communication between the DSP56002 and a terminal (PC) directly
- connectors for external access to the DSP56002's memory expansion, host interface, and serial interfaces (SSI, SCI)
- documentation (56000 Family Manual, 56002 User's Manual, 56002 data sheet, quickstart guide, debugger manual, schematics)

The on-board Crystal A/D D/A features:

- 24.576 MHz crystal for sampling at 48, 32, 16, 9.6, and 8 Ksps
- 16 bit linear, 8-bit mu-law, 8-bit a-law, and 8-bit linear sampling
- the 24.576 MHz crystal can be replaced to provide other sample rates
- Software programmable signal attenuation

P.S. TAPR is also doing a group purchase on PC-DSP and PC-SIM for Windows.

This is an excellent package for learning and developing DSP software.
See: http://www.tapr.org

The PC-DSP is an interactive, menu-driven software package used for:
waveform synthesis using a variety of methods, basic signal operation, fast
Fourier transforms, convolution and correlation, solution of difference
equations, analysis and design of IIR and FIR filters, digital filter
simulation and code generation, and power spectrum estimation using
classical and modern techniques. Some key features of PC-DSP listed
include: GNUPLOT support, code generation, macro compiler, dialog compiler,
sound file support, data file formats, and compatibility with PC-SIM.

Tucson Amateur Packet Radio
8987-309 E Tanque Verde Rd #337 * Tucson, Az * 85749-9399 * 817-383-0000
---
e-mail: TAPR@TAPR.ORG ftp: ftp.tapr.org   web: http://www.tapr.org/tapr
---

7. [DSP-93:2299] unsubscribe

From: f1txq <f1txq@worldnet.fr>
Date: Sat, 17 Aug 1996 11:30:53 +-200
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <01BB8C2F.9B7F8DC0@nice0-135.sct.fr>
Rendered body type: text/plain

[Empty message body]

8. TNC-95

From: "Donald E. Haselwood" <k4jpj@appstate.campus.mci.net>
Date: Tue, 27 Aug 1996 13:11:56 -0400
To: dsp-93@tapr.org
Message-ID: <199608271712.NAA24220@appstate-01.campus.mci.net>
Rendered body type: text/plain

Any news on where the TNC for DPS-93 stands (when it might be available)?

Don, K4JPJ

9. DSP-93

From: "Kenneth R. Goodwin" <kgoodwin@draper.com>
Date: Tue, 27 Aug 1996 13:35:30 -0500
To: dsp-93@tapr.org
Message-ID: <2.2.32.19960827183530.006929d0@minnie.jsc.draper.com>
Rendered body type: text/plain

Any word on the status of the March order for the DSP-93??

Ken Goodwin, K5RG

10. Re: [DSP-93:2305] DSP-93

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 27 Aug 1996 14:16:13 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199608271916.OAA09698@tapr.org>
Rendered body type: text/plain

They are shipping this week.

They were suppose to ship last week, but we discovered that the EPROMs were
all blank (even after they were suppose to have been programmed).

Cheers - Greg

>
> Any word on the status of the March order for the DSP-93??
>
> Ken Goodwin, K5RG
>
>

11. DSP-93

From: "Santillo, John" <SANTILLOJ@pcmail12.systems.gec.com>
Date: Tue, 27 Aug 96 15:18:00 EDT

To: DSP-93 Reflector <dsp-93@tapr.org>
Message-ID: <32234AD4@pcmail.systems.gec.com>
Rendered body type: text/plain

The word from TAPR is that the DSP-93's are going to be shipped on
Monday 8/26. I hope so, it's been a long wait.

John N2HMM
santillo@systems.gec.com

September 1996

Original source file: dsp.9609
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9609

1. Any Pacsat Experience With Motorola EVM56002?

From: Michael Rudzki <kf8bex@oeonline.com>
Date: Wed, 04 Sep 1996 16:51:43 -0400
To: dsp-93@tapr.org
Message-ID: <m0uyOkZ-0003afC@mail.oeonline.com>
Rendered body type: text/plain

I am considering buying this kit, as opposed to an AEA DSP-2232, for use
with the pacsats. Is anyone using this for pacsats? If so, what kind of radio
interface does this require? Are you using the programs already written or
have you written your own?

Thanks and 73

```
-----------------------------------------------------------------------
 Mike Rudzki, KF8BE
 E-Mail: kf8be@amsat.org            Packet: kf8be@wb8zpn.semi.mi.us
         kf8bex@oeonline.com        Active on:  RS-10, RS-12, RS-15
                                    Worked All States OSCAR CW #238
-----------------------------------------------------------------------
```

2. DSP-93

From: Greg Jones <wd5ivd@tapr.org>
Date: Wed, 4 Sep 1996 18:08:33 -0500 (CDT)
To: dsp-93@tapr.org (DSP-93 Build)
Message-ID: <199609042308.SAA08822@tapr.org>
Rendered body type: text/plain

The office should have gotten all 30 kits out the door yesterday.

As it stands right now we should be getting the three parts missing from the
kit from the kitter now that he has returned from business.

Also, another run of 20 kits is beginning right away.

Cheers - Greg

3. Paccomm TNC for DSP-93

From: Brian Mullaney <mullaneb@mccc.edu>
Date: Fri, 6 Sep 1996 10:32:05 -0400 (EDT)
To: dsp-93@tapr.org
Message-ID: <Pine.SOL.3.94.960906102830.25786B-100000@tecoma>
Rendered body type: text/plain

There was alot of discussion about the paccomm TNC until late June, then
it seemed to totally stop. Was it because everyone managed to
fix/workaround the problems, or did everyone return them?

Brian

```
         Brian Mullaney  | NRA  N-SSA | bmullane@pluto.njcc.com
            KB2TIS       | ARRL  TAPR | mullaneb@tecoma.mccc.edu
```

4. unsubscribe dsp-93@tapr.org

From: "ALLENIC Denys" <f1txq@worldnet.fr>
Date: Sat, 7 Sep 1996 13:28:37 +0200
To: <dsp-93@tapr.org>
Message-ID: <199609071132.NAA15195@storm.certix.fr>
Rendered body type: text/plain

[Empty message body]

5. unsubscribe dsp93@tapr.org

From: griedman@mail.awinc.com (G.Riedmann)
Date: Sat, 07 Sep 1996 08:04:09 -0600
To: dsp-93@tapr.org
Message-ID: <199609071737.KAA32046@freya.van.hookup.net>
Rendered body type: text/plain

[Empty message body]

6. subscribe dsp93@tapr.org

From: "GEOFF CHAPMAN" <GEOFFCHAPMAN@msn.com>
Date: Tue, 10 Sep 96 06:46:01 UT
To: dsp-93@tapr.org
Message-ID: <UPMAIL03.19960910064633037l@msn.com>
Rendered body type: text/plain

from: geoffchapman@msn.com

7. Tucson AMSAT Symposium

From: davemed@ix.netcom.com
Date: Sat, 14 Sep 1996 21:57:10 -0700
To: DSP-93@tapr.org
Cc: NW7N@AMSAT.ORG
Message-ID: <19969142154487191 69@ix.netcom.com>
Rendered body type: text/plain

We are hoping to have a working digital ground station at the forthcoming
symposium in Tucson. It would be nice if we could include a DSP-93 in the set
up and it would be even nicer if somebody could loan us one for the duration
of the conference which is November 8-10. Please let me know if you can help.
73 de Dave KI6QE/7

8. Re: [DSP-93:2314] Tucson AMSAT Symposium

From: frank wesley <fdw@hal-pc.org>
Date: Sun, 15 Sep 1996 20:00:27 -0500
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <199609160100.UAA11778@hal-pc.org>
Rendered body type: text/plain

At 11:58 PM 9/14/96 -0500, davemed@ix.netcom.com wrote:
>We are hoping to have a working digital ground station at the forthcoming
>symposium in Tucson. It would be nice if we could include a DSP-93 in the set
>up and it would be even nicer if somebody could loan us one for the duration
>of the conference which is November 8-10. Please let me know if you can help.
>73 de Dave KI6QE/7
>
I have one with the paccom tnc. Do u want to use it?
>
>
>
Name: Frank Wesley
E-Mail: fdw@hal-pc.org

9. PACCOM TNC for DSP-93 in Europe?

From: "Wolf D. Hoeller" <Wolf.Hoeller@uibk.ac.at>
Date: Sat, 21 Sep 1996 22:58:19 MET-2
To: dsp-93@tapr.org
Message-ID: <199609212120.AA19488@uibk.ac.at>
Rendered body type: text/plain

Hi DSP-93 user,

can somebody give me an adress in Europe, where the PacCom TNC for the
DSP-93 and the 56kB RF-Modem can be obtained.

Thanks in advance.

 Wolf D. Hoeller, OE7FTJ
 AMSAT-OE
 Internet: oe7ftj@amsat.org
 AX.25: oe7ftj@oe7xbb.aut.eu
---

10. To read mails *.96?

From: py4lf@bis.com.br (Julio Morais)
Date: Sun, 22 Sep 1996 22:37:53 -0300
To: dsp-93@tapr.org
Cc: uipdeo01@br.homeshopping.com.br
Message-ID: <9609230142.AA08182@brasilnet.com.br>
Rendered body type: text/plain

Hello friends! I´m begining to test DSP-93 + TNC and I download some
Mail from TAPR named JAN.96 , Feb.96 and so on....but, what kind of utility
to read that files? Thanks for help!
73´s from Julio!

```
************************************************
* Júlio M. C. Morais // R. Beta 363 // 35160-070*
* Ipatinga // MG // BRAZIL                      *
* Fone:55-31-8214084 // Fax:55-31-8293063       *
* .....................................         *
* PY4LF // Loc GH80rm                          *
* Internet: py4lf@bis.com.br                    *
* HAM Radio: @ AO-16 LO-19 // AMSAT 26.515      *
************************************************
```

11. Serial IO connector and the TNC TTL interface

From: "BBAGGER" <bbagger@dscc.dk>
Date: Fri, 27 Sep 96 08:49:32 wet
To: DSP-93 <dsp-93@tapr.org>
Message-ID: <9608278438.AA843811116@smtplink.dscc.dk>
Rendered body type: text/plain

On 1996-08-14 Ron W5RKN wrote:

>>Can someone tell me exactly how to attach a serial IO connector to the
>>TNC TTL interface of the DSP-93?
>>
>>I'm sure that level shifting and possibly inversion is required, but I'm
>>not good enuff w/hardware to do it. I have a MAX233 coming from
>>Digi-Key, if that would help.
>>
>>Thanks,
>>
>>Doug, W5JUV
>
>Why would you want to do this? The TNC connector is designed to connect to
>a Modem Disconnect Header (MDH) of a TAPR-2 clone or other TNC with an MDH.
>
>This is not a serial, i.e., RS-232, etc. interface.
>

I, for one, would want to do this. I have a Primus board in my PC
which I use for my packet operations. A standard Primus has one 8530
SCC and a AM 7911 modem chip connected to one of the SCC channels. The
other SCC channel is unused. My Primus has been modified by adding a
couple of 1488s and 1489s to the board and connecting them between the
other, previously unused, SCC channel and a DB-25 port conveniently
provided on the board by the Primus designer (Bertold, DG9BL). This
has given me one extra serial port on my computer, a serial port which
has HDLC capabilities!

Connecting the serial port on the DSP-93 to this new SCC port would
allow me to bypass any TNC, provided that the DSP-93 electrical levels
were converted to V.28 (EIA-232) specifications.

So far I havn't done this yet and instead I run the TTL level signals
from the DSP-93 onto another SCC board I have for satellite usage
directly into the 8530. This works like a charm.

Best 73 de Bent/OZ6BL
(Also oz6bl@amsat.org)

12. [DSP-93:2318] Serial IO connector and the TNC TTL interface -Reply

From: Danie Brynard <BRYD@KIDD.CO.ZA>
Date: Fri, 27 Sep 1996 13:18:30 +0200
To: dsp-93@tapr.org
Message-ID: <s24bd44a.039@KIDD.CO.ZA>
Rendered body type: text/plain

Is there perhaps info on the Primus board on the net ?
danie

>>> BBAGGER <bbagger@dscc.dk> 27/September/1996 09:10am >>>
On 1996-08-14 Ron W5RKN wrote:

>>Can someone tell me exactly how to attach a serial IO connector to the
>>TNC TTL interface of the DSP-93?
>>
>>I'm sure that level shifting and possibly inversion is required, but I'm
>>not good enuff w/hardware to do it. I have a MAX233 coming from
>>Digi-Key, if that would help.
>>
>>Thanks,
>>

>>Doug, W5JUV
>
>Why would you want to do this? The TNC connector is designed to
connect to
>a Modem Disconnect Header (MDH) of a TAPR-2 clone or other TNC
with an MDH.
>
>This is not a serial, i.e., RS-232, etc. interface.
>

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Connecting the serial port on the DSP-93 to this new SCC port would allow me to bypass any TNC, provided that the DSP-93 electrical levels were converted to V.28 (EIA-232) specifications.

So far I havn't done this yet and instead I run the TTL level signals from the DSP-93 onto another SCC board I have for satellite usage directly into the 8530. This works like a charm.

Best 73 de Bent/OZ6BL
(Also oz6bl@amsat.org)

October 1996

Original source file: dsp.9610
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9610

1. TAPR Office to reduce to minimum operations

```
From: Greg Jones <wd5ivd@tapr.org>
Date: Thu, 3 Oct 1996 10:01:18 -0500 (CDT)
To: tapr-bb@tapr.org (TAPR-BB mailing), tapr-board@tapr.org (TAPR Board),
        netsig@tapr.org (NETSIG mailing), bbssig@tapr.org (BBS SIG mailing),
        hfsig@tapr.org (HF SIG mailing), dsp-93@tapr.org (DSP-93 Build),
        aprssig@tapr.org (BBS SIG mailing), tapr-sys@tapr.org,
        amsat-bb@amsat.org (AMSAT BB Mail Group)
Message-ID: <199610031501.KAA15057@tapr.org>
Rendered body type: text/plain
```

TAPR Office to reduce to minimum operations Oct 3, 1996

The TAPR Office will shutdown to minimum operations starting October 8th and running at least until October 28th.

This means that Dorothy will not be working the office phones during this period. The office will continue to operate, but at a much reduced level. E-mail, US mail, Voice Mail, etc will still be received and recorded, but everything will be processed at a very much slower rate during this period.

GPS-20 units have begun to ship. As of this e-mail, approximately 40 units have shipped. We are awaiting additional pins for the connector (suppose to arrive Oct 11th) in order to complete the remainder of the units. These pins replace the ones that were incorrect in the shipment we received. Once the pins arrive, we will get the other units out as soon as possible.

The Motorola EVM56002 have been placed on order and are expected to arrive sometime after Oct 21st. They will then be shipped out as time permits under the operational schedule at the office. There are something like 60 of the 200 units still available in this purchase at the $85 + $10 s/h price. Check the TAPR Web page for full details www.tapr.org. First come basis on these units.

TAPR is sorry for any delays that the reduced operations schedule at the office might cause. If everything turns out positive, the office should be back operational towards the end of October.

Cheers - Greg Jones, WD5IVD
President, TAPR

(wd5ivd@tapr.org)

2. TNC-95

```
From: "Stacey E. Mills, M.D." <sem2r@virginia.edu>
Date: Thu, 03 Oct 1996 13:37:03 -0400
To: dsp-93@tapr.org
Cc: "Stacey E. Mills" <sem2r@virginia.edu>
Message-ID: <199610031737.NAA287217@avery.med.Virginia.EDU>
Rendered body type: text/plain
```

Was the TNC-95 for the DSP-93 discussed at the Digital Conference??

Does anyone have an idea when this item might be available?

Thanks.

Stacey E. Mills
E-Mail: sem2r@galen.med.virginia.edu
Office Phone: 804-982-4406
Office Fax: 804-924-8767

3. Re: [DSP-93:2320] TAPR Office to reduce to minimum operations

```
From: Ray Heasman <ray@rucus.ru.ac.za>
Date: Thu, 3 Oct 1996 20:39:23 +0200 (SAT)
To: dsp-93@tapr.org
Message-ID: <199610031839.UAA17012@rucus.ru.ac.za>
Rendered body type: text/plain
```

>
> TAPR Office to reduce to minimum operations   Oct 3, 1996
> --
>
> The TAPR Office will shutdown to minimum operations starting October 8th and
> running at least until October 28th.
>
> This means that Dorothy will not be working the office phones during this
> period. The office will continue to operate, but at a much reduced level.
> E-mail, US mail, Voice Mail, etc will still be received and recorded, but
> everything will be processed at a very much slower rate during this period.
>
> GPS-20 units have begun to ship. As of this e-mail, approximately 40 units
> have shipped. We are awaiting additional pins for the connector (suppose to
> arrive Oct 11th) in order to complete the remainder of the units. These
> pins replace the ones that were incorrect in the shipment we received. Once
> the pins arrive, we will get the other units out as soon as possible.
>
> The Motorola EVM56002 have been placed on order and are expected to arrive
> sometime after Oct 21st. They will then be shipped out as time permits
> under the operational schedule at the office. There are something like 60 of
> the 200 units still available in this purchase at the $85 + $10 s/h price.
> Check the TAPR Web page for full details www.tapr.org. First come basis on
> these units.
>
> TAPR is sorry for any delays that the reduced operations schedule at the
> office might cause. If everything turns out positive, the office should be
> back operational towards the end of October.
>
>
>
> Cheers - Greg Jones, WD5IVD
> President, TAPR
>
> (wd5ivd@tapr.org)
>
>
I had sent in a request for details on how to pay, and have received no
response. Please reserve one for me.

Thanks.
Ray Heasman
ZR6RAY@ZS6FB.TVL.ZAF.AF
ray@rucus.ru.ac.za

4. To read mails *.96?

From: py4lf@bis.com.br (Julio Morais)
Date: Thu, 03 Oct 1996 21:35:09 -0300
To: dsp-93@tapr.org
Cc: uipdeo01@br.homeshopping.com.br
Message-ID: <9610040041.AA11456@brasilnet.com.br>
Rendered body type: text/plain

Hello friends! I´m begining to test DSP-93 + TNC and I download some
Mail from TAPR named JAN.96 , Feb.96 and so on....but, what kind of utility
to read that files? Thanks for help!
73´s from Julio!
****
* Júlio M. C. Morais // R. Beta 363 // 35160-070*
* Ipatinga // MG // BRAZIL   *
* Fone:55-31-8214084 // Fax:55-31-8293063   *
* ....*
* PY4LF // Loc GH80rm   *
* Internet: py4lf@bis.com.br   *
* HAM Radio: @ AO-16 LO-19 // AMSAT 26.515   *
****

5. EVM56002 Group Purchase Update

From: Greg Jones <wd5ivd@tapr.org>
Date: Sat, 5 Oct 1996 02:53:54 -0500 (CDT)
To: tapr-bb@tapr.org (TAPR-BB mailing),
        amsat-bb@amsat.org (AMSAT BB Mail Group), dsp-93@tapr.org,
        hfsig@tapr.org (HF SIG mailing)
Message-ID: <199610050753.CAA14873@tapr.org>
Rendered body type: text/plain

TAPR EVM56002 Group Purchase Update

The last sixty TAPR EVM56002 group purchase units have been spoken for.

Purchase is closed.

Cheers - Greg, WD5IVD

6. Re: [DSP-93:2278] Re: Download Problems

From: Arthur Mercer <amercer@calvin.stemnet.nf.ca>
Date: Sun, 6 Oct 1996 00:41:02 -0230
To: dsp-93@tapr.org
Message-ID: <199610060311.AAA21130@calvin.stemnet.nf.ca>
Rendered body type: text/plain

w5rkn@amsat.org (Ronald G. Parsons) writes:
> Troubleshooting hints for the DSP-93.
>
> 1. When you power-on or press the Reset switch, does LED 1 flash a couple times?
>
> 2. When you press Reset, does JP202-1 go low?
>
> 3. When you press Reset, does JP201-3 pulse?
> If yes, this means data (the asterisk) is coming out of the UART.
>
> 4. When you type a character on the keyboard, does JP201-1 pulse?
> If no, this means you are not getting data from the computer into the UART.
>
> 5. Is the logic level of JP201-19 low?
>
> 6. When you press Reset, does JP203-11 pulse?
>
> 7. Does JP203-15 continuously pulse?
>
> Trace the data through U211. The connection paths are via the following pin
> pairs:
>
> TD   2-15
> RD   3-14
> DCD   5-12
> RTS   6-11
> CTS   7-10
> DTR   4-13
>
>
>
> When connected to D93WE and working, I get for U211:
> 1-H
> 2-L
> 3-L
> 4-H
> 5-L
> 6-H
> 7-L
> 8-L
>
>
> Ron W5RKN
>
>
> >Hi Mark and Ron and all,
> >
> >I have installed the latest version eprom, version 2.17 and the latest
> >software release # 2 6/5/95 and also borrowed another tnc to temporarily
> >replace the pk-232, an MFJ 1278 and it has a 20 pin male header
> >(modem disconnect) on the board, so I have it jumpered out per
> >your last note to me. With a five wire cable to the db25 connector
> >and then to the DSP-93 tnc header. I have five volts from pin 3
> >of the header jumpered to pins: 7,14,16, & 18 for the 2.17 eproms.
> >So instead of everything working like it should, I now have a new
> >problem. I cannot download any file to the DSP93. I get a window
> >saying: communication error check the serial cable. The cable is
> >okay and I have plus 10 volts on pin 6 of DB9 cable on the board
> >of the DSP93. The modem comes on and resets itself and will manually
> >reset when you press the reset button but no input or output from
> >the monitor. I tried the old eproms but it still wouldn't download.
> >Can you please help me out here. This fall will be two years since
> >I built this kit and I still as yet cannot get it to work hi. Just
> >one setback after another.
> >   Thanks, Bill VO1OR
> >
> >
> >PS With DSP-93 loaded in and DSP-93 modem turned on, the pins and

> >voltages on the serial connector board are:
> >
> >pin 2 +2.5v (rx)
> >pin 3 -10.75 (tx)
> >pin 4 0   (dtr)
> >pin 6 0   (dsr)
> >pin 7 +10.42 (rts)
> >pin 8 0.18 (cts) Shouldn't it be high to communicate?
> >
> >(cable checks out OK)
> >
> >Tnx again.
>
>
>

7. AO-13 telemetry program....

From: "John A. Morley" <endeavor@usa1.com>
Date: Sun, 06 Oct 1996 22:33:49 -0400
To: dsp-93@tapr.org
Message-ID: <2.2.32.19961007023349.0072da7c@usa1.com>
Rendered body type: text/plain

Can someone suggest a telemetry decoding program for AO-13 that will work with
the DSP-93. Will the Windows program P3C.EXE by Chris Jackson ZL2TPO work?
I figure that I should give this a try while I still have the chance.....

Thanks

John KA1JMF

8. Re: [DSP-93:2326] AO-13 telemetry program....

From: fperkins@onramp.net
Date: Mon, 7 Oct 1996 18:50:58 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199610072350.SAA22002@mailhost.onramp.net>
Rendered body type: text/plain

Hi,

I did my testing with P3C.EXE, but my version was not a windows program.
Contact w8gus@amsat.org for info.

73 Frank WB5IPM

9. subscribe

From: James Barron <wb5aaa@linknet.net>
Date: Mon, 07 Oct 1996 22:17:20 -0500
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961008031720.00679a70@popalex1.linknet.net>
Rendered body type: text/plain

subscribe

10. Missing DSP-93 Kit parts

From: "Wheatley, Maurice" <mwheatle@TRSYSTEMS.com>
Date: Tue, 8 Oct 1996 09:02:46 -0400
To: "'dsp-93'" <dsp-93@tapr.org>
Message-ID: <c=US%a=_%p=TR_SYSTEMS%l=WEBSERVER2-961008130246Z-493@WWW.TRSYSTEMS.COM>
Rendered body type: text/plain

Hi.
Any estimation on when the missing parts for the DSP-93 kit will be
available? If it is going to be much longer could the JEDEC files or
source code for the PALS be made available so we can scrounge up the
missing parts ourselves?
Thanks.

Moe
AE4JY
mwheatle@trsystems.com

11. Re: [DSP-93:2329] Missing DSP-93 Kit parts

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 8 Oct 1996 13:11:17 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199610081811.NAA16769@tapr.org>

Rendered body type: text/plain

Sorry for the delay -=- we are having a few issues to deal with at the
office regarding personal issues.

TheGAL are due in poend of this week and we have the MAX692APCA due in about
the same time -- so we are real close to get closure on this stuff. The
kitter finally returned from a trip and got is the stuff he had left ou .

Sorry for the delay , but it does seem like on the DSP-93, there is always
some issue outstanding each shippment.

Cheers - Greg

>
> Hi.
> Any estimation on when the missing parts for the DSP-93 kit will be
> available? If it is going to be much longer could the JEDEC files or
> source code for the PALS be made available so we can scrounge up the
> missing parts ourselves?
> Thanks.
>
> Moe
> AE4JY
> mwheatle@trsystems.com
>
>

12. Re: PRIMUS board

From: "BBAGGER" <bbagger@dscc.dk>
Date: Tue, 08 Oct 96 15:14:23 wet
To: dsp-93@tapr.org
Message-ID: <9609088447.AA844788064@smtplink.dscc.dk>
Rendered body type: text/plain

Danie Brynard <BRYD@kidd.co.za> asked on Fri, 27 Sep 1996 :
>Is there perhaps info on the Primus board on the net ?
>danie

I'm afraid not. At least I havn't found anything yet. If you need
information in addition to what I wrote previously, please feel free to
contact me and I'll (try to) provide it.

Best 73 de Bent/OZ6BL
(also oz6bl@amsat.org)

13. Kits

From: Greg Jones <wd5ivd@tapr.org>
Date: Tue, 15 Oct 1996 14:05:30 -0500 (CDT)
To: dsp-93@tapr.org (DSP-93 Build)
Message-ID: <199610151905.OAA07509@tapr.org>
Rendered body type: text/plain

Hello everyone.

An Update:

1. We will begin to ship out this week the missing parts for the 30 units
sold in this last batch. Sorry for the delay, but we just got Bill back
from the hospital and now are trying to get caught up on getting things out
the door.

2. We will be doing another 20 DSP-93 kits for December ship. We have all
the parts now for 20 units, except for the TLC32044 which is on order...and
the kitter still has to kit them before he leaves on another business trip.
So figure December ship on this -- shouldn't been any delays this time
(fingers crossed).

3. We need to locate some .44 or .22 resistors in a .25, .5. or 1 watt
package (also 1/8 watt) woudl work...anything under a watt. If you think
you have a source for either -- please, let me know by email
wd5ivd@tapr.org.

4. Several people have requested replacement chips for theirunits (i.e.
blown them up, etc) we will begin to ship chips out to people as soon as the
30 sets go out this week/next week.

5. EVM56002 units. We are expecting those units next week -- they will

begin to ship as soon as some other things get out the door. Support for
the EVM56002 and late Motorola boards will be handled on a new mailing list
called -- dsp@tapr.org. You can subscribe to that list like you did for
this one.

If you have any questions on this, please e-mail me directly.

Cheers - Greg, WD5IVD

14. DSP-93 / AO-13 telem.

From: "Stacey E. Mills, M.D." <sem2r@avery.med.virginia.edu>
Date: Sat, 19 Oct 1996 17:32:48 -0400
To: Amsat Bulletin Board <amsat-bb@amsat.org>
Cc: dsp-93@tapr.org
Message-ID: <2.2.32.19961019213248.00711b04@avery.med.virginia.edu>
Rendered body type: text/plain

Dear Group(s),
   As AO-13's life comes to an end, it will be of value to completely
monitor the final events. Only two demodulators that I am aware of will
download the last two CRCC bytes (513,514) of an AO-13 telemetry frame,
allowing the detection (and elimination) of corrupted frames...the
MKII-G3RUH 400 baud PSK demodulator and the DSP-93. As there are quite a few
DSP-93's out there, I have done some tests on my unit with regard to AO-13.
I find that the newer software (see below) gives an acceptable download
efficiency approximately 60%-70% as good as the MK-II...this can undoubtedly
be improved with code tweeking, but is quite useful as is.

The current/updated DSP-93 software is available at:

ftp://ftp.tapr.org/tapr/dsp93/software/p3c93t.zip

Note that this works with only the DSP unit and does not require a TNC.
Thus, if you've just built your DSP-93 and are trying to make up your mind
re. an internal PacComm TNC-93, the long-awaited internal TAPR TNC-95 or an
external TNC, fear not, you don't need one for this function. The telemetry
comes directly out of the DSP-93 at 1200 baud...follow the setup directions
in the text file contained with the zipped *.obj files.

Also note that this requires the original 19,200 baud rate crystal in the
DSP-93. If you've made the passthru modification to the 9,600 baud crystal,
this modem won't work.

I run Chris Jackson's Windows-based AO-13 telemetry software with my DSP-93,
but there are other, equally good programs available. Chris' program works
with either WIN 3.1 or WIN95.

Chris Jackson's Windows-based telemetry program is available at:

ftp://ftp.amsat.org/amsat/software/windows/telemetry/p3tlm.zip

Be sure to set the software for 1200 baud Com port, MKII-type modem (514
byte) and DCD Block Indicator.

If you're going to listen to the telemetry, by all means log it for possible
use by the command stations. Set the "USE CRC" function to "on/checked" by
clicking on it. Then only CRCC-OK blocks will be LOGGED.

Set the "LOGGING" function on by clicking and the "FILTER" function to
collect only Q-blocks. IF the K & L frames contain whole orbit data (WOD),
you may collect one set of these by temporarily adding them to the "FILTER"
function, then switching back to Q-block only once CRCC-OK copies have been
logged. This will keep your files as short as possible. Please save your
files at your QTH in a fashion that allows easy retrieval by orbit# or day#.
If specific gaps need filling, a request for files will be placed on the
bulletin boards.

Thanks for your help and interest....This setup here will also work with
P3D, only the telemetry frame byte assignments will need reallocation for
P3D's more complex telemetry requirements.

Enjoy, but caution, it can be addicting.

--de WB4QKT
Stacey E. (Chuck) Mills
E-mail: sem2r@galen.med.virginia.edu

15. Re: [DSP-93:2333] DSP-93 / AO-13 telem.

From: wd0e@amsat.org (Jim White)
Date: Sat, 19 Oct 1996 18:07:24 -0600 (MDT)
To: dsp-93@tapr.org
Message-ID: <v01540b00ae8ec89a461e@[206.100.130.106]>
Rendered body type: text/plain

>Dear Group(s),
>   As AO-13's life comes to an end, it will be of value to completely
>monitor the final events. Only two demodulators that I am aware of will
<BIG SNIP>
>
>Thanks for your help and interest....This setup here will also work with
>P3D, only the telemetry frame byte assignments will need reallocation for
>P3D's more complex telemetry requirements.
>
>Enjoy, but caution, it can be addicting.

Hi Stacy,
Just wanted to comment that this was particularly well written. Should
generate some interest. Guess I better dig out my DSP93 box and start
sorting out the parts :-)

73,
jw

wd0e@amsat.org

16. Re: [DSP-93:2333] DSP-93 / AO-13 telem.

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 20 Oct 1996 00:15:52 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961020001552.00671ce0@camel.campbell.edu>
Rendered body type: text/plain

Hi Stacy,

Thanks a bunch. I've not been able to make this combo work before. I was
in need of the settings you described so well.

Now all I need is a pass (15+ hours to wait!).

Thanks for all the good details.

At 16:37 10/19/96 -0500, you wrote:
>Dear Group(s),
>   As AO-13's life comes to an end, it will be of value to completely
>monitor the final events. Only two demodulators that I am aware of will

>
>Enjoy, but caution, it can be addicting.
>-------
>--de WB4QKT
>Stacey E. (Chuck) Mills
>E-mail: sem2r@galen.med.virginia.edu
>
>
>

Mark L. Hammond   [KC4EBR]

17. Re: [DSP-93:2335] Re: DSP-93 / AO-13 telem.

From: fperkins@onramp.net
Date: Sun, 20 Oct 1996 11:17:45 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <199610201617.LAA28243@mailhost.onramp.net>
Rendered body type: text/plain

Hi Mark,

Here is p3c93r1.obj (r = reentry version). This is basically the same as
p3c93t1.obj but with the tuning rate increased to track the faster doppler
we may see toward AO-13's time of reentry. I don't have a way to simlulate
the doppler here at WB5IPM so its just a guess and it may or may not work better
than p3c93t1.obj.

73 Frank WB5IPM

PS - are you going to be at the AMSAT convention??

<---- Begin Attached File ---->
begin 644 P3C93R1.OBJ
M.C$X,C`P,#`P1D8X,#$P,#A&1C@P,3!#1D9&.#`Q,$0U1D8X,#$P,#A#13`Q
M0S@P.$-%,#=#13`S.3,-"CHQ.#(P,3@P,$-%,#1#13`X1#`P,3@P,S4V,#`R
M13<P,D9%.#`Q,S8Y1#`P,3`P-S4V,#`R13<P,D%##0HZ,3@R,#,P,#!&13@P
M,3,V.40P,#$T,#,U-C`P,D4W,#)&13@P,3,V.4,X,#!#13,W0T4R,$0P,#$X
M-PT*.C$X,C`T.#`P,#`R,#8P,#1#03`P-C`V,4-%,#!#13%&1#`P,3`P,#,V
M,#8Q0T4Q1D0P,#$P,C8W1D$-"CHQ.#(P-C`P,#8P-C%#13%&1#`P,3`P,#,V
M,#8Q0T4Q1D0P,#$S,C8V-C`V,4-%,49$,#`Q,#`P,S1$#0HZ,3@R,#<X,#`V
M,#8Q0T4Q1D0P,#$S,C8T-C`V,4-%,49#13`Q1#`P,3`P,S`V,#`T0S@P-D0P
M,#%"00T*.C$X,C`Y,#`P,#,P,#8P,3E%,S$Y0T$X,S8P,4%%,3%!1#`P,3`P
M,#`V,#$Y13,Q.4-!,#`V,#%!-S0-"CHQ.#(P03@P,$4Q,4%$,#`Q,#$P,#8P
M,3E%,S$Y0T$P,38P,4%%,3%!1#`P,3`S,#`V,#$Y13,Q.34U#0HZ,3@R,$,P
M,#!#03`S-C`Q044Q,4%$,#`Q,#$P,#8P,3E%,S$Y0T$P,#8P,4%%,3%!1#`P
M,3`P,#`V1@T*.C$X,C!$.#`P-C`Q.44S,3DX-3%!0S@P,$0Q,#`P,T1&-34X
M.4-!,#!#0C%&-C!!,$0Q,#`P,SE%-40-"CHQ.#(P1C`P,#4U.#E#03`P0T(S
M1C8P03!#03`P-C`V,C8P-C,V,#8T-C`V-38P-C8V,#8W-C`V.$8Y#0HZ,3@R
M,3`X,#`V,#8Y-C`V038P-D(V,#9#-C`V1#8P-D4V,#9&-C`W,#8P-S$V,#<R
M-C`W.38P-S,P0PT*.C$X,C$R,#`P-C`W-#8P-S4V,#<V-C`W04-!,$$V,#<W
M1#`P,3`P,T,V,#<X0S@P-D-!,#`V,#`P0S8-"CHQ.#(Q,S@P,#8P,#$V,#`R
M-C`P,S8P,#0V,#`U-C`P-C8P,#<V,#`X-C`P.38P,$$V,#!"-C`P0T,Q#0HZ
M,3@R,34P,#`V,#!$-C`P138P,$8V,#$P-C`Q,38P,3(V,#$S-C`Q-#8P,34V
M,#$V-C`Q-S8P,3@Q.0T*.C$X,C$V.#`P-C`Q038P,4(V,#%#-C`Q1#8P,C`V
M,#(Q-C`R,C8P,C,V,#(T-C`R-38P,C8V,#(W-34-"CHQ.#(Q.#`P,#8P,D$V
M,#)"-C`R.38P,D,V,#)$-C`R14-!,#@V,#%%0S@P,$0P,#`P,#=%0T4P,$-%
M#0HZ,3@R,3DX,#`U-3`P1D8X,#$P0T,R,#`P-C`V,$9%.#`Q,$0Y0T4P,$-%
M,C8R,#8Q-C`P,4-%,#!#-@T*.C$X,C%",#`P0T4R-C(P-S)$,#`U,#0P,#8P
M-S)%-C<R,D,V,#8X-D8R,#9&1#`P,S`R,#!&,S@P-30-"CHQ.#(Q0S@P,#$P
M14(R,#<R1#`P-3`R,#`V,#<R1D8X,#$P148R,#<R1#`P-$9$1D8V,#<R,C`V
M1C@X#0HZ,3@R,44P,#!$,#`S,#0P,$8S.#`Q,$8Y1#`P,3`T,#`V,#9&1D8X
M,#$Q,#$R,#9&1#`P,C`T,#!&00T*.C$X,C%&.#`P1C$X,#$Q,#%$,#`Q1D,P
M,#8P-D8R,#9&1#(P,#`S.44U-3A!-C`X,$0Q,#`P,T1$,T4-"CHQ.#(R,3`P
M,#4U.#E!,#`P0T$P,$-",T8U0SDP,30U1D-%,34V0C9&,C`V040P,#(P.3E!
M,#`V141"#0HZ,3@R,C(X,#`V,#9!1#`P,S0P,#!&,S@P,3$Q038P-D$R.39!
M-C@V0D0P,#$Q,S=%,#`V0C4X-D(V,PT*.C$X,C(T,#`P0T,R,#4X-D,S0S9&
M,S@V0D-%,30V13<P,T,V1C,X-D-#13$T-D4W,4-!,#!!,#`P-$4-"CHQ.#(R
M-3@P,#4V-C,U-C8R,T,V-$)$,SDS1#8S03A&,$-%,34P0C<P-D0V,D-!,#!!
M,#`P,T,V-$8X#0HZ,3@R,C<P,#!!,#<V,T0V,T$P14,S1#8R03`W-D-%,34V
M1#<P0T$P,$$P,#`U-C8V-38V-3-#-C<Q0@T*.C$X,C(X.#`P0D0S.3-$-C9!
M.$8P0T4Q-3!"-S$V1#8U0T$P,$$P,#`S0S8W03`W-C-$-C9!,$5#.$$-"CHQ
M.#(R03`P,#-$-C5!,#<V0T4Q-39$-S$S0S<P,S@W,4-%,30V139$-38V.#-#
M-CE!-T0W0T4Q-$0X#0HZ,3@R,D(X,#`V1#8X,C`V1#`P-C@V,#8X0T$P,$$P
M,#`S0S8X04$S1#-$-CE"-C8W0T4Q-39"-CDP1`T*.C$X,C)$,#`P,C(V.38P
M-D5&13@P,3)&.$9%.#`Q,3DV1D4X,#$Q141#.#`P,C`W048R.#`Q,3=!,34-
M"CHQ.#(R13@P,#(P-S)$,#`U-#`P,#8P-S)&1C@P,3$W13(P-S)$,#`T0D9&
M1C8P-S)#.#`V,C`Q-#5&#0HZ,3@R,S`P,#!&-C@P,3$X-D9%.#`Q,C@W1D4X
M,#$R0D5#.#`P-34X.#(P.#!$,#`T1D9&0S8P-C$W10T*.C$X,C,Q.#`P,C`W
M,D0P,#1&0D9&-C`W,D4V-S)#.#`X13<P,D,X,#!%0C<Y0T4R-C4V-S-#03`P
M0C<-"CHQ.#(S,S`P,$$P,#`S0S<T03=1-%,34V1#<S,C`V13`P-S,V,#<S
M0T$P,$$P,#`S0S<S03`S-#-$#0HZ,3@R,S0X,#`S1#<T03`S-$-%,34V0S<T
M,C`W-T0P,#,P,#`Q-C`W-T8Q.#`Q,45#0T$P038P-S=$00T*.C$X,C,V,#`P
M-38W-4-!,#!!,#`P,T,W-D$W1$1#13$U-D0W-3(P-S0P,#<U-C`W-4-!,#!!
M,#`P140-"CHQ.#(S-S@P,#-#-S5!,#,T,T0W-D$P,S1#13$U-D,W-C(P-SA&
M-#@P,3%#13(P-S9#0S(P1C0X,#E"#0HZ,3@R,SDP,#`Q,45#1#`P,3`P,T,V
M,#<X1D8X,#$Q14,R,#<X1#`P,S`P,#$V,#<X1#`P,S`P,45!,@T*.C$X,C-!
M.#`P1C,X,#$Q134R,#<Y1#`P-3`P.#`V,#<Y0S@P-C(P,D5#.#`P1C8X,#$Q
M14,R,#<Y1D0-"CHQ.#(S0S`P,$0P,#4P,#`T-C`W.49&.#`Q,45#,C`W.$8S
M.#`Q,45#,C`W.40P,#1&1C="-C`W.3!&#0HZ,3@R,T0X,#!#13(V,C`W,$,X
M,#8V,#!$,C`P.$0P,#(P,S,S,#`P0S8P,#A$,#`S-#`P,$8S.#`P-`T*.C$X
M,C-&,#`P,3%&038P,#@R.3`X-C@P.40P,#$Q,S=%,#`P.34X,#E#0S(P-3@P
M03-#,$0S.#`Y,4,-"CHQ.#(T,#@P,$-%,30V13!%,T,P1#,X,$%#13$T-D4P
M1D-!,#!!,#`P-38P,34V,#`S0S`R0CDY.$-%#0HZ,3@R-#(P,#`S1#`Q044S
M0D-%,34P0C!%-D0P,$-!,#!!,#`P,T,P,D$P,$(S1#`Q03`Q-S-$,#`X1@T*
M.C$X,C0S.#`P03`P0D-%,34V1#!%0T$P,$$P,#`U-C`T-38P,S-#,#5".3DX
M,T0P-$%%,T)#13$U0S<-"CHQ.#(T-3`P,#!",$8V1#`S0T$P,$$P,#`S0S`U
M03`P0C-$,#1!,#$W,T0P,T$P,$)#13$U-D0P1C4R#0HZ,3@R-#8X,#`S0S!%
M,S@P1D-%,30V13!",C`Q140P,#,P,#`Q-C`Q148Q.#`Q,C4R0T$P.#8P,45"
M0@T*.C$X,C0X,#`P-38P-C-#,#=!-T4R0T4Q-#9$,#8R,#!",#`P-C8P,#9#
M03`P03`P,#-#,#9!,3A#-3<-"CHQ.#(T.3@P,#-$,#="13DR0T4Q-39$,#<R
M,C`W-C`P0S4V,3(R,#`Y1C,X,#$R-4%#03`Q-C`Q,D9&#0HZ,3@R-$(P,#!&
M1C@P,3(U0T-!,#`V,#$R0T$P,#8P,30R,#$R-$,Q,T8V.#`Q,C@V,C`Q,D8U
M.#`V-PT*.C$X,C1#.#`P,3(X-D-!,#$V,#$T-38Q,#(P,$5&,S@P,3(V1D-!
M,#$V,#$P1D8X,#$R-S%#03`P.38-"CHQ.#(T13`P,#8P,3`R,#$P-$,Q,48V
M.#`Q,C=%0S@P,$-!,#$V,#=!0S@P-C8P,41#03`Q-C`Q-D4X#0HZ,3@R-$8X
M,#!&1C@P,3(X-D,X,#!#03`P-C`W04,X,#8V,#%$1#`P,49&1D8V,#$V0T4R

```
M-D,X,#9&-PT*.C$X,C4Q,#`P,C`Q-48U.#`Q,D)$,C`Q-D0R,#`P,T1&-34X
M038P.#!$,3`P,#-&134U.#E!,#`P-#$-"CHQ.#(U,C@P,$-!,#!#0C%&-4,Y
M,#$T,T9#13$U-C`Q-D0P,#,P,#(P1C8X,#$R03A#03`P-C`Q-45$#0HZ,3@R
M-30P,#!#.#`X,C`P,D0P,#1&1D)&-C`P,D,X,#9&1C@P,3)"1$-!,#$V,#$U
M0S@P.#(P,#(T1@T*.C$X,C4U.#`P1#`P-3`P-#`V,#`R0S@P-D0P,#$P-#`P
M-C`Q.44S,3E#03`Q-C`Q044Q,4%#03`P1#(-"CHQ.#(U-S`P,#8P,3@V,#%!
M1#`P,49&1D8V,#$W0T4R-D,X,#8R,#$U1C8X,#$R1C<R,3%#-$0Q1$9%#0HZ
M,3@R-3@X,#!$,#`T,#!&1C8P,4,R,#$W0T,P,38P,3=$,#`S,#`P.$8U.#`Q
M,D8Q,C`Q0S8P,4$V.`T*.C$X,C5!,#`P0T$P,#8P,4,V,#$W0S@P.#(P,#)$
M,#`U,#`X,#8P,#)#.#`V1#`P,3`P,#`V,#$Y034-"CHQ.#(U0C@P,$4S,3E%
M,3%!,C`Q.$-#,#$V,#$X1#`P,S`R,#)&-3@P,3)&-T0P,#$P-#`P-C`Q.48T
M#0HZ,3@R-40P,#!%,S$Y0T$P,#8P,4%%,3%!0T$P,#8P,4,V,#$W-C`Q.#8P
M,35#.#`X,C`P,D0P,#0T.`T*.C$X,C5%.#`P1D8W1C8P,#)#.#`V0T4R-C(P
M-D9#.#`V-C`R.4,X,#`R.39!0S@P-C8X,C9$,#`Q0T(-"CHQ.#(V,#`P,#$S
M-T4P,#(V0T,Q,#4X,C9#0S(P-3@R-S-#,CDS.#(V0T4Q-#9%,D$S0S(Y,S@R
M-S0U#0HZ,3@R-C$X,#!#13$T-D4R0D-!,#!!,#`P-38R,34V,C`S0S(R0D0S
M.3-$,C%!.$8P0T4Q-3!",D$W-@T*.C$X,C8S,#`P-D0R,$-!,#!!,#`P,T,R
M,D$P-S8S1#(Q03!%0S-$,C!!,#<V0T4Q-39$,D%#03`P.#8-"CHQ.#(V-#@P
M,$$P,#`U-C(T-38R,S-#,C5"1#,Y,T0R-$$X1C!#13$U,$(R0C9$,C-#03`P
M03`P,#@T#0HZ,3@R-C8P,#`S0S(U03`W-C-$,C1!,$5#,T0R,T$P-S9#13$U
M-D0R0C-#,D$S.#)"0T4Q-#9%,CA#0PT*.C$X,C8W.#`P-38R0T-!,#!!,#`P
M,T,R1$$W1$1#13$U-D0R0S(P,C@P,#)#-C`R0T-!,#!!,#`P.$(-"CHQ.#(V
M.3`P,#-#,D-!,#,T,T0R1$$P,S1#13$U-D,R1#4U.#@R-3)$-C`X,#(P,D1#
M.#`P1#`P,C0V#0HZ,3@R-D$X,#`P,#-#1C0X,#$S-C$R,#<Y1#`P-3`P-#`V
M,#<Y0T$P,4,X,#8V,#)%0S@P,$9&.#`P,0T*.C$X,C9#,#`P,3,V.#(P-SE$
M,#`T1D9"1C8P-SE#03`P0S@P-D,X,#!#13(V0S)&1D9%.#`Q,S9&-D4-"CHQ
M.#(V1#@P,$9%.#`Q,S9&0T4R-D,R1D9&13@P,3,W-49%.#`Q,S<U0T4R-D,R
M1D9#,T9&-34X0D0R#0HZ,3@R-D8P,#!&0CDP,3,W-S4U.$%&0CDP,3,W-D-%
M,C8P,#`P,#`S,C`P-C0P,#DV,#!#.#`P1CE%.0T*.C$X,C<P.#`P,#$R.3`Q
M-3DP,3@X,#%"-C`Q13,P,C!%,#(S.3`R-C(P,CA!,#)",#`R1#0P,D8W-34-
M"CHQ.#(W,C`P,#`S,3@P,S,V,#,U,S`S-D4P,S@W,#,Y13`S0C(P,T,T,#-$
M-#`S13$P,T5#,#-&-3-$#0HZ,3@R-S,X,#`P,T9",#-&1C`T,#`P,T9&,#-&
M0C`S1C4P,T5#,#-%,3`S1#0P,T,T,#-",C`S.45#-@T*.C$X,C<U,#`P,#,X
M-S`S-D4P,S4S,#,S-C`S,3@P,D8W,#)$-#`R0C`P,CA!,#(V,C`R,SDP,C!%
M,3`-"CHQ.#(W-C@P,#`Q13,P,4(V,#$X.#`Q-3DP,3(Y,#!&.3`P0S@P,#DV
M,#`V-#`P,S(P,#`P1D9#148W#0HZ,3@R-S@P,#!&1CE#1D8V049&,SA&1C`W
M1D5$-T9%03=&13<X1D4T049%,41&1$8R1D1#-T9$.44U1@T*.C$X,C<Y.#`P
M1D0W-D9$-3!&1#)#1D0P.49#13A&0T-!1D-!1$9#.3)&0S<Y1D,V,D9#-$5&
M0S-#,#0-"CHQ.#(W0C`P,$9#,D-&0S%&1D,Q-$9#,$)&0S`U1D,P,49#,#!&
M0S`Q1D,P-49#,$)&0S$T1D,Q1CA$#0HZ,3@R-T,X,#!&0S)#1D,S0T9#-$5&
M0S8R1D,W.49#.3)&0T%$1D-#049#13A&1#`Y1D0R0T9$-3`Q1@T*.C$X,C=%
M,#`P1D0W-D9$.45&1$,W1D1&,D9%,41&131!1D4W.$9%03=&140W1D8P-T9&
M,SA&1C9!,C<-"CHQ.#(W1C@P,$9&.4-&1D-%,#`P,#`P,S(P,#8T,#`Y-C`P
M0S@P,$8Y,#$R.3`Q-3DP,3@X,#%"-D(P#0HZ,3@R.#$P,#`P,44S,#(P13`R
M,SDP,C8R,#(X03`R0C`P,D0T,#)&-S`S,3@P,S,V,#,U,S`S-D5&-0T*.C$X
M,C@R.#`P,#,X-S`S.44P,T(R,#-#-#`S1#0P,T4Q,#-%0S`S1C4P,T9",#-&
M1C`T,#`P,T9&-#D-"CHQ.#(X-#`P,#`S1D(P,T8U,#-%0S`S13$P,T0T,#-#
M-#`S0C(P,SE%,#,X-S`S-D4P,S4S,#,S-C,Y#0HZ,3@R.#4X,#`P,S$X,#)&
M-S`R1#0P,D(P,#(X03`R-C(P,C,Y,#(P13`Q13,P,4(V,#$X.#`Q-3DQ,PT*
M.C$X,C@W,#`P,#$R.3`P1CDP,$,X,#`Y-C`P-C0P,#,R,#`P,$9&1D9&1D9&
M,#`P,3`P,#$P,#`Q,T$-"CHQ.#(X.#@P,$9&1D9&1D9&,#`P,49&1D9&1D9&
M1D9&1C`P,#%&1D9&,#`P,49&1D8P,#`Q,#`P,30Q#0HZ,3@R.$$P,#`P,#`Q
M,#`P,49&1D8P,#`Q,#`P,49&1D8P,#`Q1D9&1D9&1D8P,#`Q,#`P,49&1D8R
M,PT*.C$X,CA".#`P1D9&1D9&1D9&1D9&,#`P,#`P,#<P,#!#,#`P,T9&1C%&
M1D5!1D9&.#`P,#1&1D8W,D4-"CHQ.#(X1#`P,$9&13DP,#`Y,#`T.3`P-3<P
M,#!&1D9#049&13$P,#$P1D9#049&,S1&1C,Y,#`S,S,P#0HZ,3@R.$4X,#`P
M,3%",#!$0S`P,3`P,#4T,#$X1C`Q-$5&13$S1D$X-49"-#<P,3)$,#<Q-#`W
M,30V-PT*.C$X,CDP,#`P,#$R1$9"-#=&03@U1D4Q,S`Q-$4P,3A&,#`U-#`P
M,3`P,$1#,#$Q0C`P,S-&1C,Y,3D-"CHQ.#(Y,3@P,$9&,S1&1D-!,#`Q,$9&
M13%&1D-!,#`P1C`P-3<P,#0Y,#`P.49&13E&1D8W,#`P-#4X#0HZ,$4R.3,P
M,#!&1D8X1D9%049&1C$P,#`S,#`P0S`P,#<P,#`P0C,-"CHP,#`P,#`P,49&
"#0I
end
<---- End Attached File ---->
```

18. Re: [DSP-93:2336] Re: DSP-93 / AO-13 telem.

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 20 Oct 1996 21:09:25 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961020210925.00694a88@camel.campbell.edu>
Rendered body type: text/plain

Hi Frank,

Thanks for thinking of us and looking ahead.

Frustratingly, no, I won't be able to attend the AMSAT meeting. My teaching duties are in biology, so it is hard for me to get away during the semester for something not related to my discipline.

Hope I can try out the new AO-13 code in a few days. Hard to be home to
catch the quick passes this past 2 days!

At 11:30 10/20/96 -0500, you wrote:
>Hi Mark,
>
>Here is p3c93r1.obj (r = reentry version). This is basically the same as
>p3c93t1.obj but with the tuning rate increased to track the faster doppler
>we may see toward AO-13's time of reentry. I don't have a way to simlulate
>the doppler here at WB5IPM so its just a guess and it may or may not work
better
>than p3c93t1.obj.
>
>73 Frank WB5IPM
>
>PS - are you going to be at the AMSAT convention??

Mark L. Hammond   [KC4EBR]

19. PC-DSP and PC-SIM Order

From: "James R. Kauten, MD" <kauten@atl.mindspring.com>
Date: Tue, 22 Oct 1996 21:00:03 -0400
To: arne_luehrs@grenoble.hp.com, n0aot@amsat.org, rsmith@internetmci.com,
bgaf@annap.infi.net, mullaneb@mccc.edu, xbrucex@popmail.mcs.net,
crlbyers@garlic.com, dsp-93@tapr.org, ebossa@acm.org,
101365.1113@compuserve.com, wd5ivd@tapr.org, hbs@crl.com,
hfsig@tapr.org, govier02@sarenet.es, k4gvo@america.net,
jsanford@infi.net, hl1sqi@neptune.samwoo.co.kr, kgoodwin@draper.com,
kbanke@mage.qualcomm.com, johnson@mmsi.com, 100577.1452@compuserve.com,
MS16948@LTU.EDU, rsuban@promitheus.maltanet.omnes.net,
rbiasiot@nji.com, schultew@uni-duesseldorf.de, tedm@voyager.co.nz,
wb8oue@amsat.org, LANIER.R.A-@smtpgty.bwi.wec.com, twatson@magic1.org,
wpreez@csir.co.za, ylshih@alumni.caltech.edu
Message-ID: <1.5.4.32.19961023010003.006d3abc@pop.atl.mindspring.com>
Rendered body type: text/plain

As you are aware, many folks expressed an interest in the software: PC-DSP
and PC-SIM by DSP Solutions (http://www.dspsolutions.com). TAPR also has a
description of the software on their web page (http://www.tapr.org). In the
most recent PSR-TAPR newsletter there is also a description. If there are
any other folks interested in purchasing the software other than those of us
who have placed our orders, place your order thru TAPR so that a final order
can be sent in. We need a minimum order of 21 before an order can be placed.

Thank you.

Jim Kauten, MD, KO4RQ
==========
James R. Kauten, M.D., KO4RQ (kauten@mindspring.com)
==========
Phone: (404) 355-9537 (Fax)   (404) 355-9515 (Daytime)
Address: James R. Kauten, M.D., 95 Collier Road, Suite 2055
                                                Atlanta, GA, 30305-1955
==========

20. Re: DSP-93 / AO-13 telem.

From: "BBAGGER" <bbagger@dscc.dk>
Date: Wed, 23 Oct 96 11:58:24 wet
To: dsp-93@tapr.org
Message-ID: <9609238460.AA846072235@smtplink.dscc.dk>
Rendered body type: text/plain

Hi,

     I downloaded p3c93t.zip from ftp.amsat.org and unpacked it on my PC
     running Windows 3.11, but when I tried to start p3c93t, Windows
     complained (bitterly?) about p3c93t.exe (or one of its components)
     missing.

     Have I broken some (unwritten) rule or does anybody have any clue as
     to what is the reason for this message.

     Thanks in advance for your help.

     Best 73 de Bent/OZ6BL

21. EVM56002 radio interface schematic?

From: hammond@camel.campbell.edu (Mark L. Hammond)
Date: Wed, 23 Oct 1996 10:08:48 -0400
To: dsp-93@tapr.org
Message-ID: <v01540b01ae93d69241f3@[152.38.1.2]>
Rendered body type: text/plain

Hello all,

In anticipation of the EVM56002 arrival, I was considering the radio interface issue. Johan, KC7WW, has a schematic of such a beast, but I cannot read the file types. He has posted both the following:

```
=======
Native EVM56002 Applications (KC7WW)

EVMPCB.PLT
       KC7WW's EVM radio interface schematic in HPGL format.
EVMPCB.SCH
       KC7WW's EVM radio interface schematic in ORCAD format.

========
```

Can anybody on this list make some sort of translation of these into either .PDF or .BMP file types so some of us nontechnical types can print the schematic? The files are available at:

ftp://ftp.tapr.org/tapr/SIG/hfsig/upload/evm56k3.zip

Thanks,

```
--------------------------
Mark L. Hammond [KC4EBR]
Campbell University
```

22. Re: [DSP-93:2339] Re: DSP-93 / AO-13 telem.

From: "Stacey E. Mills, M.D." <sem2r@virginia.edu>
Date: Wed, 23 Oct 1996 11:04:31 -0400
To: dsp-93@tapr.org
Message-ID: <199610231504.LAA69188@avery.med.Virginia.EDU>
Rendered body type: text/plain

At 06:17 AM 10/23/96 -0500, you wrote:

```
>     Hi,
>
>     I downloaded p3c93t.zip from ftp.amsat.org and unpacked it on my PC
>     running Windows 3.11, but when I tried to start p3c93t, Windows
>     complained (bitterly?) about p3c93t.exe (or one of its components)
>     missing.
>
>     Have I broken some (unwritten) rule or does anybody have any clue as
>     to what is the reason for this message.
>
>     Thanks in advance for your help.
>
>     Best 73 de Bent/OZ6BL
>
```

Hi Bert,
P3c93t.obj is not an executable file. It an "obj" code file that needs to be loaded into the DSP-93 with one of the loader programs, either the Windows-based loader or the DOS-based DSPLOAD. ie. DSPLOAD is an executable file, so (from failing memory) you'd need a DOS prompt call like "DSPLOAD p3c93t" (assuming they were both in the same directory and the DSPLOAD had been configured properly for the COM PORT, speed, etc.

```
--------
Stacey E. Mills
E-Mail: sem2r@virginia.edu
Office Phone: 804-982-4406
Office Fax: 804-924-8767
```

23. p3c93t.OBJ

From: hammond@camel.campbell.edu (Mark L. Hammond)
Date: Wed, 23 Oct 1996 11:07:08 -0400
To: dsp-93@tapr.org
Message-ID: <v01540b02ae93e3ee663d@[152.38.1.2]>
Rendered body type: text/plain

Hi Bent,

The file is an OBJECT file that needs to be loaded to the DSP-93 by using
either DSPLOAD with the following syntax:

dspload p3c93t

or by using the Windows utility written for the DSP-93.

Once that is loaded, you need to run P3TLM.exe (download using the link
Stacy provided) as the local software to decode the data from the
bird->thru the DSP-93. Following Stacy's instructions and setting
carefully. They are well written and tell you the P3TLM settings.

I tried last night for the first time. I did not have enough signal to get
good data (I got a few 514 byte blocks, but they failed CRC check). Maybe
I can catch a good pass and seem some telemtry!

Good luck--I hope this helps to clarify things a bit.

> Hi,
>
> I downloaded p3c93t.zip from ftp.amsat.org and unpacked it on my PC
> running Windows 3.11, but when I tried to start p3c93t, Windows
> complained (bitterly?) about p3c93t.exe (or one of its components)
> missing.
>
> Have I broken some (unwritten) rule or does anybody have any clue as
> to what is the reason for this message.
>
> Thanks in advance for your help.
>
> Best 73 de Bent/OZ6BL
>

Mark L. Hammond [KC4EBR]
Campbell University

24. RE: [DSP-93:2340] EVM56002 radio interface schematic?

From: "Jabi" <govier02@sarenet.es>
Date: Wed, 23 Oct 1996 22:33:14 +0100
To: <dsp-93@tapr.org>
Message-ID: <199610232134.WAA23899@sarenet.es>
Rendered body type: text/plain

Dear Mark:
Morming I am to upload case with seragraphie and radio interface more
elabored...
Is possible also upload ti KO-23, KO-25 and UO-22.
For the next mont, I have to upload one Eprom 2C040 with 16 modems for
radio and audio.
See atent!!
73, de Jabi, EA2ARU

> De: Mark L. Hammond <hammond@camel.campbell.edu>
> A: dsp-93@tapr.org
> Asunto: [DSP-93:2340] EVM56002 radio interface schematic?
> Fecha: miércoles 23 de octubre de 1996 15:11
>
> Hello all,
>
> In anticipation of the EVM56002 arrival, I was considering the radio
> interface issue. Johan, KC7WW, has a schematic of such a beast, but I
> cannot read the file types. He has posted both the following:
> =======
> Native EVM56002 Applications (KC7WW)
>
> EVMPCB.PLT
>   KC7WW's EVM radio interface schematic in HPGL format.
> EVMPCB.SCH
>   KC7WW's EVM radio interface schematic in ORCAD format.
>
> ========
>
> Can anybody on this list make some sort of translation of these into

either
> .PDF or .BMP file types so some of us nontechnical types can print the
> schematic? The files are available at:
>
> ftp://ftp.tapr.org/tapr/SIG/hfsig/upload/evm56k3.zip
>
>
> Thanks,
>
> --------------------------
> Mark L. Hammond [KC4EBR]
> Campbell University
>
>

25. Re: [DSP-93:2340] EVM56002 radio interface schematic?

From: "Steven R. Bible" <srbible@gnatnet.net>
Date: Wed, 23 Oct 1996 18:27:29 -0400
To: dsp-93@tapr.org, hfsig@tapr.org
Message-ID: <1.5.4.32.19961023222729.0067c0e0@gnatnet.net>
Rendered body type: text/plain

Mark, I am way overdue in getting the DSP Experimenters Web Pages on the
TAPR Web site updated and improved. I just happen to be working on a
DSP56002EVM page. It will have the schematic and PCB layouts available in
both PDF and PS format. Look for the page at

   http://www.tapr.org/dsp/evm56k

As always, please let me know of any suggestions and comments to improve the
pages.

73, Steve N7HPR

At 09:11 AM 10/23/96 -0500, you wrote:
>Hello all,
>
>In anticipation of the EVM56002 arrival, I was considering the radio
>interface issue. Johan, KC7WW, has a schematic of such a beast, but I
>cannot read the file types. He has posted both the following:
>=======
>Native EVM56002 Applications (KC7WW)
>
>EVMPCB.PLT
>   KC7WW's EVM radio interface schematic in HPGL format.
>EVMPCB.SCH
>   KC7WW's EVM radio interface schematic in ORCAD format.
>
>========
>
>Can anybody on this list make some sort of translation of these into either
>.PDF or .BMP file types so some of us nontechnical types can print the
>schematic? The files are available at:
>
>ftp://ftp.tapr.org/tapr/SIG/hfsig/upload/evm56k3.zip
>
>
>Thanks,
>
>--------------------------
>Mark L. Hammond [KC4EBR]
>Campbell University
>
>
>

 - Steve, N7HPR
 (n7hpr@tapr.org)

26. HPGL schematic

From: mrx@irlw1c01.ck.cit.alcatel.fr (Kevin Connolly)
Date: Thu, 24 Oct 96 08:34:23 BST
To: dsp-93@tapr.org, hammond@camel.campbell.edu
Message-ID: <9610240734.AA00369@irlw1c01.ck.cit.alcatel.fr>
Rendered body type: text/plain

Hello,
To print HPGL I suggest ftp://oak.oakland.edu/pub/simtelnet/msdos/plot/prtgl128.zip

I tried it out on the EVM interface schematic printing to a laserjet using the
command: printgl /FL /M1 /P my-file.plt

Kevin Connolly, EI4ANB

27. Re: [DSP-93:2344] Re: EVM56002 radio interface schematic?

From: "Jabi" <govier02@sarenet.es>
Date: Thu, 24 Oct 1996 10:19:50 +0100
To: <dsp-93@tapr.org>
Message-ID: <199610240923.KAA06250@sarenet.es>
Rendered body type: text/plain

> From: Steven R. Bible <srbible@gnatnet.net>
> To: dsp-93@tapr.org
> Subject: [DSP-93:2344] Re: EVM56002 radio interface schematic?
> Date: Miércoles 23 de Octubre de 1996 11:31 PM
>
> Mark, I am way overdue in getting the DSP Experimenters Web Pages on the
> TAPR Web site updated and improved. I just happen to be working on a
> DSP56002EVM page. It will have the schematic and PCB layouts available
in
> both PDF and PS format. Look for the page at
>
>   http://www.tapr.org/dsp/evm56k
>
> As always, please let me know of any suggestions and comments to improve
the
> pages.
>
> 73, Steve N7HPR
>
I to send the EVM56002.zip attached. It is the spanish translation ans
adaptation of the Forrer original article.
In the next week I am to upload the PCB of my radio interface and the masks
for one case for the EVM.
73, Jabi EA2ARU

28. Re: [DSP-93:2340] EVM56002 radio interface schematic?

From: Torfinn Holand <torfinn@spacetec.no>
Date: Thu, 24 Oct 1996 11:07:34 +0200
To: dsp-93@tapr.org
Message-ID: <2.2.16.19961024090734.31ffa4f2@jupiter.spacetec.no>
Rendered body type: text/plain

Hi,

If you have a PC and 'Microsoft Word' you should be able to import
the schematic file in HPGL format with the command 'INSERT PICTURE' and
select the file format HP Graphic Language.

Good luck

Torfinn, LA7SP
E-mail: la7sp@amsat.org

At 09:11 23.10.96 -0500, you wrote:
>Hello all,
>
>In anticipation of the EVM56002 arrival, I was considering the radio
>interface issue. Johan, KC7WW, has a schematic of such a beast, but I
>cannot read the file types. He has posted both the following:
>=======
>Native EVM56002 Applications (KC7WW)
>
>EVMPCB.PLT
>   KC7WW's EVM radio interface schematic in HPGL format.
>EVMPCB.SCH
>   KC7WW's EVM radio interface schematic in ORCAD format.
>
>========
>
>Can anybody on this list make some sort of translation of these into either
>.PDF or .BMP file types so some of us nontechnical types can print the

>schematic? The files are available at:
>
>ftp://ftp.tapr.org/tapr/SIG/hfsig/upload/evm56k3.zip
>
>
>Thanks,
>
>--------------------------
>Mark L. Hammond [KC4EBR]
>Campbell University
>
>
>
>

29. Re: [DSP-93:2344] Re: EVM56002 radio interface schematic?

From: "Jabi" <govier02@sarenet.es>
Date: Thu, 24 Oct 1996 10:22:44 +0100
To: <dsp-93@tapr.org>
Message-ID: <199610240925.KAA06308@sarenet.es>
Rendered body type: text/plain

I to send the EVM56002.zip attached. It is the spanish translation ans
adaptation of the Forrer original article.
In the next week I am to upload the PCB of my radio interface and the masks
for one case for the EVM.
73, Jabi EA2ARU

> From: Steven R. Bible <srbible@gnatnet.net>
> To: dsp-93@tapr.org
> Subject: [DSP-93:2344] Re: EVM56002 radio interface schematic?
> Date: Miércoles 23 de Octubre de 1996 11:31 PM
>
> Mark, I am way overdue in getting the DSP Experimenters Web Pages on the
> TAPR Web site updated and improved. I just happen to be working on a
> DSP56002EVM page. It will have the schematic and PCB layouts available
in
> both PDF and PS format. Look for the page at
>
>   http://www.tapr.org/dsp/evm56k
>
> As always, please let me know of any suggestions and comments to improve
the
> pages.
>
> 73, Steve N7HPR
[Attachment: evm56002.ZIP; application/octet-stream; 356,722 bytes]

30. Re: [DSP-93:2347] Re: EVM56002 radio interface schematic?

From: hammond@camel.campbell.edu (Mark L. Hammond)
Date: Thu, 24 Oct 1996 08:27:09 -0400
To: dsp-93@tapr.org
Message-ID: <v01540b00ae9510ae2fad@[152.38.1.2]>
Rendered body type: text/plain

Thanks to all who responded about the schematics.

Steve, the web page and .pdf files are great. Printed them just dandy.

Jambi, looking forward to seeing your radio interface design.

Torfinn, I will remember the Word display of HPGL files for the future.
That is a neat trick.   I was not aware that would work.

Mark L. Hammond [KC4EBR]
Campbell University

31. RE: [DSP-93:2349] Re: EVM56002 radio interface schematic?

From: "Jabi" <govier02@sarenet.es>
Date: Fri, 25 Oct 1996 07:21:55 +0100
To: <dsp-93@tapr.org>
Message-ID: <199610250623.HAA08563@sarenet.es>
Rendered body type: text/plain

Dear all DSP56002EVM:
I have (20) kits of the radio inrterface for the EVM. The kit is based in
the excelente disegn for ZS6AWK and retouched for me.
The price is around US 25$ completed and tested.
I have also the case with panel and rear metalized and serigraphieds. I am
to upload photos this morning... The price is around US 75$.
Interested call mee for e-mail or satellite KO-23, KO-25 and UO-22.
73, de Jabi, EA2ARU

> De: Mark L. Hammond <hammond@camel.campbell.edu>
> A: dsp-93@tapr.org
> Asunto: [DSP-93:2349] Re: EVM56002 radio interface schematic?
> Fecha: jueves 24 de octubre de 1996 13:31
>
> Thanks to all who responded about the schematics.
>
> Steve, the web page and .pdf files are great. Printed them just dandy.
>
> Jambi, looking forward to seeing your radio interface design.
>
> Torfinn, I will remember the Word display of HPGL files for the future.
> That is a neat trick.   I was not aware that would work.
>
>
> --------------------------
> Mark L. Hammond [KC4EBR]
> Campbell University
>
>

32. RE: [DSP-93:2349] Re: EVM56002 radio interface schematic?

From: "Jabi" <govier02@sarenet.es>
Date: Fri, 25 Oct 1996 07:12:19 +0100
To: <dsp-93@tapr.org>
Message-ID: <199610250623.HAA08546@sarenet.es>
Rendered body type: text/plain

Dear MarK:
I to send two photos of the my radio interface.
The design is of ZS6AWK. But corrections are of EA2ARU.

> De: Mark L. Hammond <hammond@camel.campbell.edu>
> A: dsp-93@tapr.org
> Asunto: [DSP-93:2349] Re: EVM56002 radio interface schematic?
> Fecha: jueves 24 de octubre de 1996 13:31
>
> Thanks to all who responded about the schematics.
>
> Steve, the web page and .pdf files are great. Printed them just dandy.
>
> Jambi, looking forward to seeing your radio interface design.
>
> Torfinn, I will remember the Word display of HPGL files for the future.
> That is a neat trick.   I was not aware that would work.
>
>
> --------------------------
> Mark L. Hammond [KC4EBR]
> Campbell University
>
>
[Attachment: evmawk.zip; application/octet-stream; 62,406 bytes]
[Attachment: foto1.jpg; application/octet-stream; 24,123 bytes]
[Attachment: foto2.jpg; application/octet-stream; 21,618 bytes]

33. Re: DSP-93 / AO-13 telem.

From: "BBAGGER" <bbagger@dscc.dk>
Date: Fri, 25 Oct 96 08:02:40 wet
To: dsp-93@tapr.org
Message-ID: <9609258462.AA846231603@smtplink.dscc.dk>
Rendered body type: text/plain

Oops,

> I goofed... I confused the file names in my previous e-mail on this
> matter and mentioned the .obj file where I ment the telemetry program
> P3TLM. It should have read:

"Hi,

I downloaded p3TLM.zip from ftp.amsat.org and unpacked it on my PC
running Windows 3.11, but when I tried to start p3TLM, Windows
complained (bitterly?) about p3TLM.exe (or one of its components)
missing.

Have I broken some (unwritten) rule or does anybody have any clue as
to what is the reason for this message.

Thanks in advance for your help."

I guess its one of the things that can happen when you do cut and
paste (;-(. I *am* aware of the difference between the two files and
it is with the windows program, that I do have trouble.

Once again, I'm sorry for the confusion I have caused and thanks to
those of you who responded to my first e-mail.

Best 73 de Bent/OZ6BL

34. Re: [DSP-93:2348] Re: EVM56002 radio interface schematic?

From: "Jabi" <govier02@sarenet.es>
Date: Fri, 25 Oct 1996 12:27:20 +0100
To: <dsp-93@tapr.org>
Message-ID: <199610251130.MAA17347@sarenet.es>
Rendered body type: text/plain

Dear DSP56002EVM:
I have uploaded two photos of the case for the DSP.
73, de Jabi, EA2ARU.

Excusme my very poor english!!!

> From: Jabi <govier02@sarenet.es>
> To: dsp-93@tapr.org
> Subject: [DSP-93:2348] Re: EVM56002 radio interface schematic?
> Date: Jueves 24 de Octubre de 1996 12:07 PM
>
> I to send the EVM56002.zip attached. It is the spanish translation ans
> adaptation of the Forrer original article.
> In the next week I am to upload the PCB of my radio interface and the
masks
> for one case for the EVM.
> 73, Jabi EA2ARU
>
>
> ----------
> > From: Steven R. Bible <srbible@gnatnet.net>
> > To: dsp-93@tapr.org
> > Subject: [DSP-93:2344] Re: EVM56002 radio interface schematic?
> > Date: Miércoles 23 de Octubre de 1996 11:31 PM
> >
> > Mark, I am way overdue in getting the DSP Experimenters Web Pages on
the
> > TAPR Web site updated and improved. I just happen to be working on a
> > DSP56002EVM page. It will have the schematic and PCB layouts available
> in
> > both PDF and PS format. Look for the page at
> >
> >   http://www.tapr.org/dsp/evm56k
> >
> > As always, please let me know of any suggestions and comments to
improve
> the
> > pages.
> >
> > 73, Steve N7HPR
>
[Attachment: case.ZIP; application/octet-stream; 152,293 bytes]

35. Re: [DSP-93:2348] Re: EVM56002 radio interface schematic?

From: Analysis Tech <info@analysistech.com>
Date: Fri, 25 Oct 1996 08:12:36 -0500 (CDT)
To: dsp-93@tapr.org
Message-ID: <2.2.16.19961025091204.3aaf8aa2@usa1.com>
Rendered body type: text/plain

I really wish you wouldn't send massive attached files to the amsat-bb
reflector. You are forcing everyone who receives amsat-bb mail to accept
these files, when in fact, only a few are interested. How about posting
these files at the amsat ftp site, so that only those who wish to retreive
them can do so!

Tom

At 06:07 AM 10/24/96 -0500, you wrote:
>I to send the EVM56002.zip attached. It is the spanish translation ans
>adaptation of the Forrer original article.
>In the next week I am to upload the PCB of my radio interface and the masks
>for one case for the EVM.
>73, Jabi EA2ARU
>
>
>----------
>> From: Steven R. Bible <srbible@gnatnet.net>
>> To: dsp-93@tapr.org
>> Subject: [DSP-93:2344] Re: EVM56002 radio interface schematic?
>> Date: Miércoles 23 de Octubre de 1996 11:31 PM
>>
>> Mark, I am way overdue in getting the DSP Experimenters Web Pages on the
>> TAPR Web site updated and improved. I just happen to be working on a
>> DSP56002EVM page. It will have the schematic and PCB layouts available
>in
>> both PDF and PS format. Look for the page at
>>
>>   http://www.tapr.org/dsp/evm56k
>>
>> As always, please let me know of any suggestions and comments to improve
>the
>> pages.
>>
>> 73, Steve N7HPR
>Content-Type: application/octet-stream; name="evm56002.ZIP"
>Content-Description: evm56002 (ZIP archivo)
>Content-Disposition: attachment; filename="evm56002.ZIP"

>
>Attachment Converted: c:\internet\eudora\attach\evm56001.ZIP
>

36. Re: [DSP-93:2350] Re: EVM56002 radio interface schematic?

From: "JOSE MANUEL VILLADANGOS" <villa@depeca.alcala.es>
Date: Fri, 25 Oct 1996 15:57:33 +0000
To: dsp-93@tapr.org
Message-ID: <199610251347.IAA17507@tapr.org>
Rendered body type: text/plain

Hola Jabi:

Estoy interesado en el tema del procesado digital de senales de
audio, aplicado a la recepcion de senales en HF. He leido tus
mensajes a traves de TAPR. Veo que trabajas con Motorola. Yo estoy
utilizando el TMS320C50 con el started kit (DSK). Basicamente estoy
haciendo cosas de filtrado (CW y SSB) en ensamblador, utilizando las
toolbox de Procesado de Senales de MATLAB como soporte. Los resultados
 son muy buenos, pero me gustaria trabajar con el 56000 de Motorola, ya que
estoy realizando aplicaciones entorno al 68HC11. Me resulta complicada la
programacion de la familia TMS320. Se que hay cosas realizadas para el 56000
en temas de radio, aunque quizas no este tan difundido.

Me gustaria mentener contacto contigo a traves de este medio, para
intercambiar experiencias. Tengo posibilidad de realizar PCB,s (doble
cara y taladro metalizado) a partir de ficheros de TANGO-PCB y
ORCAD-PCB.

Me gustaria saber si programas los DSP,s para intercambiar ideas.

Recibe un saludo cordial, y estoy a tu entera disposicion.

****
Jose Manuel Villadangos (EA1DKW /EA4)
E-mail : villa@depeca.alcala.es
****

37. RE: [DSP-93:2354] Re: EVM56002 radio interface schematic?

From: "Jabi" <govier02@sarenet.es>
Date: Fri, 25 Oct 1996 16:58:43 +0100
To: <dsp-93@tapr.org>
Message-ID: <199610251559.QAA26035@sarenet.es>
Rendered body type: text/plain

Dear Steve:
Perdon for my ...
I have to upload to the HFSIG, not to the e-mail ...
Tnx for call me.
73, de Jabi, EA2ARU.

De: Analysis Tech <info@analysistech.com>
A: dsp-93@tapr.org
Asunto: [DSP-93:2354] Re: EVM56002 radio interface schematic?
Fecha: viernes 25 de octubre de 1996 14:14

I really wish you wouldn't send massive attached files to the amsat-bb
reflector. You are forcing everyone who receives amsat-bb mail to accept
these files, when in fact, only a few are interested. How about posting
these files at the amsat ftp site, so that only those who wish to retreive
them can do so!

Tom

At 06:07 AM 10/24/96 -0500, you wrote:
>I to send the EVM56002.zip attached. It is the spanish translation ans
>adaptation of the Forrer original article.
>In the next week I am to upload the PCB of my radio interface and the
masks
>for one case for the EVM.
>73, Jabi EA2ARU
>
>
>----------
>> From: Steven R. Bible <srbible@gnatnet.net>
>> To: dsp-93@tapr.org
>> Subject: [DSP-93:2344] Re: EVM56002 radio interface schematic?
>> Date: Miércoles 23 de Octubre de 1996 11:31 PM
>>
>> Mark, I am way overdue in getting the DSP Experimenters Web Pages on the
>> TAPR Web site updated and improved. I just happen to be working on a
>> DSP56002EVM page. It will have the schematic and PCB layouts available
>in
>> both PDF and PS format. Look for the page at
>>
>>   http://www.tapr.org/dsp/evm56k
>>
>> As always, please let me know of any suggestions and comments to improve
>the
>> pages.
>>
>> 73, Steve N7HPR
>Content-Type: application/octet-stream; name="evm56002.ZIP"
>Content-Description: evm56002 (ZIP archivo)
>Content-Disposition: attachment; filename="evm56002.ZIP"

>
>Attachment Converted: c:\internet\eudora\attach\evm56001.ZIP
>
----

38. Re: [DSP-93:2350] Re: EVM56002 radio interface schematic?

From: George Cserenyi <zsolt@direct.ca>
Date: Fri, 25 Oct 1996 09:19:31 -0700 (PDT)
To: Jabi <govier02@sarenet.es>
Cc: dsp-93@tapr.org
Message-ID: <Pine.LNX.3.91.961025091503.24650A-100000@boxer.direct.ca>
Rendered body type: text/plain

Greetings,
                I would be interested in the interface kit and software
but when I went to order the DSP56002EVM radio, the web page said,
it's been sold out. Without the radio, not much use to buy the interface :)
I'm a pensioner on a budget, anyone has a solution out there?
73,

George
ve7ciz

On Fri, 25 Oct 1996, Jabi wrote:

> Dear all DSP56002EVM:
> I have (20) kits of the radio inrterface for the EVM. The kit is based in
> the excelente disegn for ZS6AWK and retouched for me.
> The price is around US 25$ completed and tested.
> I have also the case with panel and rear metalized and serigraphieds. I am
> to upload photos this morning... The price is around US 75$.
> Interested call mee for e-mail or satellite KO-23, KO-25 and UO-22.
> 73, de Jabi, EA2ARU
>
> ----------
> > De: Mark L. Hammond <hammond@camel.campbell.edu>
> > A: dsp-93@tapr.org
> > Asunto: [DSP-93:2349] Re: EVM56002 radio interface schematic?
> > Fecha: jueves 24 de octubre de 1996 13:31
> >
> > Thanks to all who responded about the schematics.
> >
> > Steve, the web page and .pdf files are great. Printed them just dandy.
> >
> > Jambi, looking forward to seeing your radio interface design.
> >
> > Torfinn, I will remember the Word display of HPGL files for the future.
> > That is a neat trick.   I was not aware that would work.
> >
> >
> > --------------------------
> > Mark L. Hammond [KC4EBR]
> > Campbell University
> >
> >
>
>
>

39. Re: [DSP-93:2357] Re: EVM56002 radio interface schematic?

From: Charles Brain <chbrain@dircon.co.uk>
Date: Fri, 25 Oct 1996 18:20:56 +0100
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961025172056.00676168@popmail.dircon.co.uk>
Rendered body type: text/plain

At 11:18 25/10/96 -0500, you wrote:
>Greetings,
>   I would be interested in the interface kit and software
>but when I went to order the DSP56002EVM radio, the web page said,
>it's been sold out. Without the radio, not much use to buy the interface :)
>I'm a pensioner on a budget, anyone has a solution out there?
>73,
>George
>ve7ciz
>
Hello George,

I have 5 of the EVMs on order, due to a change in my plans I no longer
require all five of them so I can let you have one of them. I will have to
clear it with TAPR central though (just hope they havn't shipped them yet).

Regards Charles G4GUO

40. Re: [DSP-93:2348] Re: EVM56002 radio interface schematic?

From: "Steven R. Bible" <srbible@gnatnet.net>
Date: Fri, 25 Oct 1996 16:19:35 -0400
To: dsp-93@tapr.org, govier02@sarenet.es
Message-ID: <1.5.4.32.19961025201935.0068faac@gnatnet.net>
Rendered body type: text/plain

At 06:07 AM 10/24/96 -0500, you wrote:
>I to send the EVM56002.zip attached. It is the spanish translation ans
>adaptation of the Forrer original article.
>In the next week I am to upload the PCB of my radio interface and the masks
>for one case for the EVM.
>73, Jabi EA2ARU

Jabi, the attached zip file was corrupted and I could not unzip it. If you
like, please email me personally with a new zip file and I'll post it on the
web page. Or you can upload your file to

  ftp://www.tapr.org/tapr/SIG/hfsig/upload/

In either case, please check your zip file before sending/uploading, that it
is a good one.

73,

 - Steve, N7HPR
 (n7hpr@tapr.org)

41. DSP56002EVM backorders honored?

From: Jeff King <jeff@mich.com>
Date: Fri, 25 Oct 1996 16:53:09 -0500
To: dsp-93@tapr.org
Cc: chbrain@dircon.co.uk
Message-ID: <2.2.32.19961025215309.006a41e4@mail.mich.com>
Rendered body type: text/plain

At 01:57 PM 10/25/96 -0500, you wrote:
>At 11:18 25/10/96 -0500, you wrote:
>>Greetings,
>>   I would be interested in the interface kit and software
>>but when I went to order the DSP56002EVM radio, the web page said,
>>it's been sold out. Without the radio, not much use to buy the interface :)
>>I'm a pensioner on a budget, anyone has a solution out there?
>>73,
>>George
>>ve7ciz
>>
>Hello George,
>
>I have 5 of the EVMs on order, due to a change in my plans I no longer
>require all five of them so I can let you have one of them. I will have to
>clear it with TAPR central though (just hope they havn't shipped them yet).
>
>Regards Charles G4GUO
>
>

Charles:

I'd be interested in one of those units. I've had a request in to
TAPR since October 15th for a DSP56002EVM to TAPR, in case some-one
decided not to purchase their unit(s).

Are there any decent 'C' compilers out for the 56002?

-Jeff WB8WKA

42. Re: [DSP-93:2360] DSP56002EVM backorders honored?

From: Lyle Johnson <lylej@azstarnet.com>
Date: Fri, 25 Oct 1996 18:13:10 -0700 (MST)
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961025181345.0037d74c@pop.azstarnet.com>
Rendered body type: text/plain

Jeff,

>Are there any decent 'C' compilers out for the 56002?

I believe a version of the GNU compiler is available for the 56002. But,
you usually have severe memory and time-of-execution constraints in DSP
work, you "decent" never applies. No one I have talked to who does
real-time DSP (as opposed to, say, modelling, like PC-DSP or PC-SIM) has
ever been satisfied with the results of a C compiler for a DSP chip.

The best rapid-development environment I ever saw was the "sketch and
realize" environment of the now-defunct Star Semiconductor SPROC chips.
THis more like a visual linkage of pre-compiled modules for specific
functions...

Cheers,

Lyle

43. RE: [DSP-93:2355] Re: EVM56002 radio interface schematic?

From: "Jabi" <govier02@sarenet.es>
Date: Sat, 26 Oct 1996 08:17:01 +0100
To: <dsp-93@tapr.org>
Message-ID: <199610260718.IAA13269@sarenet.es>
Rendered body type: text/plain

Amigo Jose:
Para el TMS32C50 existe una serie completa de programas de radioaficionados
en la direccion:
http://www.ife.ee.ethz.ch/~sailer/ham/ham.html
Para el Motorola todavia la lista es mas extensa.
Actualmente existen del orden de 25 modems distintos y funcionando.
Todos vienen en ensamblador para que ensamblemos y funcionemos...
Si estas interesado, llama por baja al:94 - 6203067.
73, de Jabi, EA2ARU

> De: JOSE MANUEL VILLADANGOS <villa@depeca.alcala.es>
> A: dsp-93@tapr.org
> Asunto: [DSP-93:2355] Re: EVM56002 radio interface schematic?
> Fecha: viernes 25 de octubre de 1996 14:52
>
> Hola Jabi:
>
> Estoy interesado en el tema del procesado digital de senales de
> audio, aplicado a la recepcion de senales en HF. He leido tus
> mensajes a traves de TAPR. Veo que trabajas con Motorola. Yo estoy
> utilizando el TMS320C50 con el started kit (DSK). Basicamente estoy
> haciendo cosas de filtrado (CW y SSB) en ensamblador, utilizando las
> toolbox de Procesado de Senales de MATLAB como soporte. Los resultados
> son muy buenos, pero me gustaria trabajar con el 56000 de Motorola, ya
que
> estoy realizando aplicaciones entorno al 68HC11. Me resulta complicada
la
> programacion de la familia TMS320. Se que hay cosas realizadas para el
56000
> en temas de radio, aunque quizas no este tan difundido.
>
> Me gustaria mentener contacto contigo a traves de este medio, para
> intercambiar experiencias. Tengo posibilidad de realizar PCB,s (doble
> cara y taladro metalizado) a partir de ficheros de TANGO-PCB y
> ORCAD-PCB.
>
> Me gustaria saber si programas los DSP,s para intercambiar ideas.
>
> Recibe un saludo cordial, y estoy a tu entera disposicion.
>
> ************************************
> Jose Manuel Villadangos (EA1DKW /EA4)
> E-mail : villa@depeca.alcala.es
> ************************************
>

44. TAPR DSP56002EVM Web Pages

From: "Steven R. Bible" <srbible@gnatnet.net>
Date: Sat, 26 Oct 1996 08:39:51 -0400
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961026123951.009517f8@gnatnet.net>
Rendered body type: text/plain

Hi All,

I've spent the day refining and adding to the DSP56002EVM web page on the
TAPR Web server.

    http://www.tapr.org/dsp/evm56k/index.html

I've managed to catalog all of the experimenting that has been done on the
EVM. There's KC7WW, ZS6AWK, and EA2ARU's work featured. If you know of any
other projects please email me.

With the success of the TAPR group purchase of the EVM, there's going to be
a couple of hundred new experimenters out there. Hopefully, this page can
be a good starting place for these folks and veterans alike.

As always, suggestions are welcome in improving the pages.

73,

- Steve, N7HPR
(n7hpr@tapr.org)

- Steve, N7HPR
(n7hpr@tapr.org)

45. Re: [DSP-93:2360] DSP56002EVM backorders honored?

From: Ray Heasman <ray@rucus.ru.ac.za>
Date: Sun, 27 Oct 1996 11:28:05 +0200 (SAT)
To: dsp-93@tapr.org
Message-ID: <199610270928.LAA15052@rucus.ru.ac.za>
Rendered body type: text/plain

> >Hello George,
> >
> >I have 5 of the EVMs on order, due to a change in my plans I no longer
> >require all five of them so I can let you have one of them. I will have to
> >clear it with TAPR central though (just hope they havn't shipped them yet).
> >
> >Regards Charles G4GUO
> >
> >
>
> Charles:
>
> I'd be interested in one of those units. I've had a request in to
> TAPR since October 15th for a DSP56002EVM to TAPR, in case some-one
> decided not to purchase their unit(s).
>
> Are there any decent 'C' compilers out for the 56002?
>
> -Jeff WB8WKA

Charles, I would be very interested in one of those units! TAPR somehow lost my order, so its as if I never ordered one (I think :) I'll send one last email). If you have any left, please reserve one for me.

Thanks,
Ray Heasman
ray@rucus.ru.ac.za
ZR6RAY@ZS6FB.TVL.ZAF.AF

46. Re: [DSP-93:2363] TAPR DSP56002EVM Web Pages

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 27 Oct 1996 22:00:16 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961027220016.0066351c@camel.campbell.edu>
Rendered body type: text/plain

Looks nice, Steve. I have been thinking about the unit a good bit lately as have others, I'm sure.

Might I suggest that you shoot a copy of this mail message to the more general dsp@tapr.org mailing list?

For those of you on this (dsp-93@tapr.org) mailing list, I would suggest that you join the dsp@tapr.org list as I think that will be the mailing list most appropriate for discussion concerning the EVM56002 kit.

For those wanting to know, use the link in Steve's message below to signup to the dsp list.   He has provided a handy link to the listproc page that Greg has setup.

At 20:25 10/26/96 -0500, you wrote:
>Hi All,
>
>I've spent the day refining and adding to the DSP56002EVM web page on the
>TAPR Web server.
>
>   http://www.tapr.org/dsp/evm56k/index.html
>
>I've managed to catalog all of the experimenting that has been done on the
>EVM. There's KC7WW, ZS6AWK, and EA2ARU's work featured. If you know of any
>other projects please email me.
>
>With the success of the TAPR group purchase of the EVM, there's going to be

>a couple of hundred new experimenters out there. Hopefully, this page can
>be a good starting place for these folks and veterans alike.
>
>As always, suggestions are welcome in improving the pages.
>
>73,
>
> - Steve, N7HPR
> (n7hpr@tapr.org)
>
>
> - Steve, N7HPR
> (n7hpr@tapr.org)
>
>
>

Mark L. Hammond   [KC4EBR]

47. Re: dsp93 + paccomm

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Sun, 27 Oct 1996 21:03:28 -0600
To: Julio Morais <py4lf@bis.com.br>
Cc: dsp-93 <dsp-93@tapr.org>
Message-ID: <3274227F.2727@amsat.org>
Rendered body type: text/plain

Julio,

It's better to post these questions to the dsp-93 maillist
(dsp-93@tapr.org) so if I am not available or don't give the right
answer, others may respond. Also, others may benefit from our
conversation.

Julio Morais wrote:
>
>   Dear RON:
>
>   I´m a subscriber of DSP93 lists and I have got some matters written
> from you and I´m trying to learn more about DSP93 operation.
>   I´m not an electronic ham but I like learn about new packet kits.So,
> I got a DSP93 kit from TAPR, like a membership, and slowly I assembled and
> now is right to go on air...hihi, but I need some help from you!Can you?
>   I make all tests like said the manual assembler and all ok!
> I got also the Paccomm TNC to incorporate to same case and all ok!
> Today I make tests with the TNC and with the dsp93, using Passthru on or off
> and allseems fine.But I have some dificult to understand how to work packet,
> loadind the *.OBJ programs.So, let see what I did:

I asume you are able to go into and out of PASSTHRU. You can get the '*'
prompt from the DSP-93, you can use the Monitor in the DSP-93, i.e., you
can get the command menu by pressing the '?' key; you can get a list of
programs in the EPROM by pressing the 'P' key and then the '?' key.

Have you run all the TEST... programs?

> 1-All comunication with TNC and DSP is ok! Baud for DSP HDLC is 1200;for
> Terminal is 9600 and for DSPserial throught TNC is 19200.

Better to use 19200 for Terminal.

> 2-I loaded the fskp1.obj to try 1200 afsk on port 1 and I got the parameter *G
> So, I leaved the D93WE.exe terminal program and I loaded a normal Packet
> terminal program but nothing could to do.No PTT sinal on LED 4 and so on.
> Ron, any bad operation?

fskp1 is a 9600 bps fsk modem. You want the 1200 bps afsk modem PKTP1.
For your first trials, load the modem from the EPROM by pressing the 'P'
key and then the letter/number for the modem.

> I didn´t find any good operation manual for the next steps. The dsp93_op.pdf
> don´t say anything about that steps.

Let me know how you succeed/fail.

>   Sorry Ron for the doubts but probably must be easy..hihi!
>   Thanks for some help to follow the next steps!

```
>         Best 73´s from Julio......py4lf@amsat.org
>
> ***********************************************
> * PY4LF ..... AMSAT 26515 ..... TAPR 4962 ..... *
> * Júlio M. C. Morais // R. Beta 363 // 35160-070*
> * Ipatinga // MG // BRAZIL                      *
> * Fone:55-31-8214084 // Fax:55-31-8293063       *
> ***********************************************

--
Ron W5RKN

also:
rparsons@bga.com
```

48. DSP in C

```
From: AA2TX@aol.com
Date: Sun, 27 Oct 1996 23:09:22 -0500
To: dsp-93@tapr.org
Message-ID: <961027230922_1980420417@emout07.mail.aol.com>
Rendered body type: text/plain
```

Just a note on writing DSP applications in C,

At Madge Networks/Teleos Communications, we did a video conference bridge using
TI DSPs as a joint venture with PictureTel. Virtually all of our code was in C or C++.
(If anyone tells you that C++ is less efficient than C - DON'T HIRE THEM! :)
We used the Tartan compiler which is quite good but unfortunately quite expensive
by any ham radio standard.

I haven't used the GNU compiler for a 56K but it generates quite good code for the
68K family. I had to look at the assembly listing and count machine cycles for some
parts to make sure it would meet the real-time constraints but in the end
the compiler did just fine. Its probably worth looking into for 56K.

Cheers,
Tony AA2TX@amsat.org

49. Re: DSP56002EVM backorders honored?

```
From: sbenzion@netvision.net.il
Date: Mon, 28 Oct 96 14:57:48 PST
To: dsp-93@tapr.org
Message-ID: <Chameleon.961028150118.sbenzion@dialup.netvision.net.il>
Rendered body type: text/plain
```

Charles,
I'm interested too in one of the leftover units. Please reserve one for me.
Thanks,
Ben Z. Sha'al 4X1IL

50. DSP93 Start?

```
From: py4lf@bis.com.br (Julio Morais)
Date: Mon, 28 Oct 1996 21:09:44 -0300
To: dsp-93@tapr.org
Message-ID: <9610282321.AA20043@brasilnet.com.br>
Rendered body type: text/plain
```

Hello fellows:
        My "P" Menu into screen terminal has something strange.Let see:

```
?
1-SCOPE                 J-APT_93B
2-SPECTRUM ANALYZER     K-TESTANIN
3-FUNCTION GENERATOR    L-TESTBUZZ
4-CW_93D                M-TESTLEDS
5-HFU_93X               N-TESTPORT
6-HF_93A                O-TESTRAMP
7-HF_93AE       P-TPRSP1-MS       Q-TPRSP2
9-P1     -FSP1
A-PKTP2      SKP2
BPSK_93SI      -K1
C-PSK_93SK       FI
-PSK_93XI        MSAEPSK_93XK         -AAPPSK_93AI         XSETK_93AK
```

```
H-PSK_9-K32RORAM #(1-X    =?
1-SCOPE                   J-APT_93B
2-SPECTRUM ANALYZER       K-TESTANIN
3-FUNCTION GENERATOR      L-TESTBUZZ
4-CW_93D                  M-TESTLEDS
5-HFU_93X                 N-TESTPORT
6-HF_93A                  O-TESTRAMP
HF_93AE            TR18TET              -R29K                 S1APP
S-FSBS9I         T-FSKISI-K3
U-FSKISIP2PK9I        V-MEASGATN-K3      W-MEASGAIP
FK3I    X-SPEEDTST
G-K3-K9IPSK_93P2


PR 1X ??
1-SCOPE                   J-APT_93B
2-SPECTRUM ANALYZER       K-TESTANIN
3-FUNCTION GENERATOR      L-TESTBUZZ
4-CW_93D                  M-TESTLEDS
5-HFU_93X                 N-TESTPORT
6-HF_93A                  O-TESTRAMP
7-HF_93AE            -R18EST              -P2
-T                S1-KP             S-FS2BP_3         T-FSKISIPCP_S
U-FSKISIP2-S9I      V-
MEASGATN
S9K     W-MEASGAIP
FK9I     -SPEEDTST
G-P9KHP_T-SK_93P2

.....What do you think?
TNX and 73´s from Julio!
************************************************
* PY4LF ..... AMSAT 26515 ..... TAPR 4962 ..... *
* Júlio M. C. Morais // R. Beta 363 // 35160-070*
* Ipatinga // MG // BRAZIL                      *
* Fone:55-31-8214084 // Fax:55-31-8293063       *
************************************************
```

51. Re: [DSP-93:2369] DSP93 Start?

```
From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Mon, 28 Oct 1996 19:18:24 -0600
To: dsp-93@tapr.org
Message-ID: <32755B60.75B4@amsat.org>
Rendered body type: text/plain
```

```
Julio Morais wrote:
>
>         Hello fellows:
>         My "P" Menu into screen terminal has something strange.Let see:
>
> ?
> 1-SCOPE                   J-APT_93B
> 2-SPECTRUM ANALYZER       K-TESTANIN
> 3-FUNCTION GENERATOR      L-TESTBUZZ
> 4-CW_93D                  M-TESTLEDS
...
>
> ....What do you think?

This is a known problem in the current version of the PacComm TNC.
PacComm is working on the problem. It is caused by data overrun between
the DSP-93 and the TNC. The best temporary fix is to replace the crystal
on the DSP-93 board 2 with one of half the frequency. That will change
the DSP-93 baud rate to 9600 from 19200.

This improves the situation but is NOT a full cure. But it will make the
system useable.

Contact PacComm for more info on their solution.

--
Ron W5RKN

also:
rparsons@bga.com
```

52. Re: [DSP-93:2369] DSP93 Start?

From: Charlie Wood <chaswood@primenet.com>
Date: Tue, 29 Oct 1996 07:12:58 -0600
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <2.2.32.19961029131258.0068a458@mailhost.primenet.com>
Rendered body type: text/plain

At 05:21 PM 10/28/96 -0600, Julio Morais wrote:
>   Hello fellows:
>   My "P" Menu into screen terminal has something strange.Let see:
>
>?
>1-SCOPE   J-APT_93B
>2-SPECTRUM ANALYZER   K-TESTANIN
>3-FUNCTION GENERATOR   L-TESTBUZZ
>4-CW_93D   M-TESTLEDS
>5-HFU_93X   N-TESTPORT
>6-HF_93A   O-TESTRAMP

My "P" Menu has less programs than Julio's. I have version 2.17 eproms and
notice that TAPR ftp only has these (2.17) there. Is there a new version to
be had?
thanks..
Charlie WA5KYV

53. Re: [DSP-93:2371] Re: DSP93 Start?

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Tue, 29 Oct 1996 11:06:14 -0600
To: dsp-93@tapr.org
Message-ID: <32763985.1F7B@amsat.org>
Rendered body type: text/plain

Charlie Wood wrote:
>
> At 05:21 PM 10/28/96 -0600, Julio Morais wrote:
> >   Hello fellows:
> >   My "P" Menu into screen terminal has something strange.Let see:
> >
> >?
> >1-SCOPE   J-APT_93B
> >2-SPECTRUM ANALYZER   K-TESTANIN
> >3-FUNCTION GENERATOR   L-TESTBUZZ
> >4-CW_93D   M-TESTLEDS
> >5-HFU_93X   N-TESTPORT
> >6-HF_93A   O-TESTRAMP
>
> My "P" Menu has less programs than Julio's. I have version 2.17 eproms and
> notice that TAPR ftp only has these (2.17) there. Is there a new version to
> be had?
> thanks..
> Charlie WA5KYV

Version 2.17 is the latest. Are you sure you are not losing data between
the DSP-93 and your terminal? Send me a list of the "P?" command output.

What is your configuration vis a vis the DSP-93?
--
Ron W5RKN

also:
rparsons@bga.com

54. Re: [DSP-93:2372] Re: DSP93 Start?

From: Charlie Wood <chaswood@primenet.com>
Date: Tue, 29 Oct 1996 17:43:54 -0600
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <2.2.32.19961029234354.0068038c@mailhost.primenet.com>
Rendered body type: text/plain

At 11:09 AM 10/29/96 -0600, Ronald G. Parsons wrote:
>> >2-SPECTRUM ANALYZER   K-TESTANIN
>> >3-FUNCTION GENERATOR   L-TESTBUZZ
>> >4-CW_93D   M-TESTLEDS
>> >5-HFU_93X   N-TESTPORT
>> >6-HF_93A   O-TESTRAMP
>>
>> My "P" Menu has less programs than Julio's. I have version 2.17 eproms and
>> notice that TAPR ftp only has these (2.17) there. Is there a new version to

>> be had?
>> thanks..
>> Charlie WA5KYV
>
>
>Version 2.17 is the latest. Are you sure you are not losing data between
>the DSP-93 and your terminal? Send me a list of the "P?" command output.
>
>What is your configuration vis a vis the DSP-93?
>--
>Ron W5RKN
>

Weird...notice Julio's menu -- O-TESTRAMP Mine is K-TESTRAMP..etc My
total program menu is 1 thru T ...I dont think I can be losing data and
renumbering programs.

my boot:

DSP-93 TAPR / AMSAT REV 2.17
Copyright <c> 1995 by Tucson Amateur Packet Radio Corporation.

I will dl the eprom on the web site (2.17) and take a look...
thanks charlie

55. RE: [DSP-93:2368] Re: DSP56002EVM backorders honored?

From: "Jabi" <govier02@sarenet.es>
Date: Wed, 30 Oct 1996 07:07:23 +0100
To: <dsp-93@tapr.org>
Message-ID: <199610300608.HAA24256@sarenet.es>
Rendered body type: text/plain

Dear Ben:
What: the interface of the case asembled?
73, de Jabi, EA2ARU

> De: sbenzion@netvision.net.il
> A: dsp-93@tapr.org
> Asunto: [DSP-93:2368] Re: DSP56002EVM backorders honored?
> Fecha: lunes 28 de octubre de 1996 14:34
>
> Charles,
> I'm interested too in one of the leftover units. Please reserve one for
me.
> Thanks,
> Ben Z. Sha'al 4X1IL
>

56. P3TLM.exe problem solved

From: "BBAGGER" <bbagger@dscc.dk>
Date: Wed, 30 Oct 96 10:53:45 wet
To: DSP-93 <dsp-93@tapr.org>
Cc: amsat-bb@amsat.org
Message-ID: <9609308466.AA846669604@smtplink.dscc.dk>
Rendered body type: text/plain

Hi,

     With the help of WB4QKT, Stacey, the problem, I had with loading
     P3TLM.exe has been solved. It turns out that P3TLM requires a loadable
     module called BWCC.dll for its function. As soon as that was made
     available to P3TLM, it started working. BWCC.dll is not part of a
     standard Windows configuration but appears to stem from a Borland
     toolkit.

     I'll post a copy of this message on amsat-bb@amsat.org since amsat.org
     is the 'home' of P3TLM.

     Best 73 de Bent

57. Re: [DSP-93:2370] Re: DSP93 Start?

From: py4lf@bis.com.br (Julio Morais)
Date: Tue, 29 Oct 1996 19:51:08 -0300
To: dsp-93@tapr.org
Message-ID: <9610292202.AA07177@brasilnet.com.br>
Rendered body type: text/plain

>Julio Morais wrote:
>>
>>   Hello fellows:
>>   My "P" Menu into screen terminal has something strange.Let see:
>>
>> ?
>> 1-SCOPE   J-APT_93B
>> 2-SPECTRUM ANALYZER   K-TESTANIN
>> 3-FUNCTION GENERATOR   L-TESTBUZZ
>> 4-CW_93D   M-TESTLEDS
>..
>>
>> ....What do you think?
>
>This is a known problem in the current version of the PacComm TNC.
>PacComm is working on the problem. It is caused by data overrun between
>the DSP-93 and the TNC. The best temporary fix is to replace the crystal
>on the DSP-93 board 2 with one of half the frequency. That will change
>the DSP-93 baud rate to 9600 from 19200.
>
>This improves the situation but is NOT a full cure. But it will make the
>system useable.
>
>Contact PacComm for more info on their solution.
>
>--
>Ron W5RKN
>
>also:
>rparsons@bga.com
>
>
>
...Ok RON, tnx for info;I´ll contact Paccomm! Anyway, I must change the
crystal first before trying any command going on my tests with 1200 asfk?!
73´s from Julio
py4lf

58. (no subject)

From: "Roberto Vaccaro" <roberto@mc.village.it>
Date: Thu, 31 Oct 1996 21:11:42 +0100
To: <dsp-93@tapr.org>, <amsat-bb@amsat.org>
Message-ID: <199610312022.UAA01231@mc.village.it>
Rendered body type: text/plain

UNSCRIBE

roberto@mc.village.it

59. Re: Re DSP & C

From: AA2TX@aol.com
Date: Thu, 31 Oct 1996 21:57:21 -0500
To: SnoozeCat@aol.com, DSP-93@tapr.org
Message-ID: <961031215719_343760227@emout07.mail.aol.com>
Rendered body type: text/plain

Hi Jerry,
Here are a few suggestions for a DSP56K C compiler:

1. The easiest way is to buy Motorola's GNU-based C compiler package. It
comes with
a debugger (GNU SDB) and you can also buy the source code if you want it
 The part number is DSP56KCCA (for DOS, others are available.)
The quantity 1, list price is $350. But since you mentioned its for a course,
 Motorola has a "University Support" program and they offer products at a
discount.
The phone number for this program is (512) 891-3098. Its probably worth
checking
this one out first.

2. You can download Motorola's "public-domain" GNU C compiler as well as an
assembler, linker, and a simulator for DOS from :

     ftp://evans.ee.adfa.oz.au/pub/dsp/cross-asm/56k/56ktools.zip

I would guess that this is an older one. I tried the simulator myself and it
came right up.

3. You can download GNU source code for the 56K compiler and build it

yourself from:

     ftp://nic.funet.fi/pub/ham/dsp/dsp56k-tools/g56k-gcc.tar.z

4. I believe Washington University in St Louis also has a 56K GNU C compiler
at their
   ftp site but I am not sure of the file name so you have to look for it at:

     ftp://wuarchive.wustl.edu

Good luck! When the TAPR/AMSAT group gets their 56KEVM kits we may see lots
of new interesting software.

73,
Tony AA2TX@amsat.org

November 1996

Original source file: dsp.9611
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9611

1. Re: [DSP-93:2378] Re: Re DSP & C

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Fri, 01 Nov 1996 06:44:28 -0600
To: dsp-93@tapr.org
Message-ID: <3279F0AC.3A17@amsat.org>
Rendered body type: text/plain

AA2TX@aol.com wrote:
>
> Hi Jerry,
> Here are a few suggestions for a DSP56K C compiler:
>

Shouldn't these discussions be taken to dsp@tapr.org. They are off topic
for dsp-93.
--
Ron W5RKN

also:
rparsons@bga.com

---

2. List Management

From: Bdale Garbee <bdale@gag.com>
Date: Fri, 1 Nov 1996 16:35:24 -0700
To: dsp-93@tapr.org
Message-ID: <199611012335.QAA00300@chunks.gag.com>
Rendered body type: text/plain

In article <3279F0AC.3A17@amsat.org> you wrote:
:
: Shouldn't these discussions be taken to dsp@tapr.org. They are off topic
: for dsp-93.

Personally, I think that dsp-93 should be shut down, and the membership folded
in to the newer, less specific dsp list. Neither has much volume.

Bdale, N3EUA

---

3. Re: [DSP-93:2380] List Management

From: Greg Jones <wd5ivd@tapr.org>
Date: Fri, 1 Nov 1996 18:07:45 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199611020007.SAA14947@tapr.org>
Rendered body type: text/plain

Hi Bdale.

The purpose of the DSP-93 list is to handle build information and updates
about the DSP-93.

Since there are kits still being sold, we will need this list in order to
handle those issues. I know I have seen several messages just in the last
week with people getting their kits on-line. One reason for having lists at
all on TAPR.ORG was to hande the ever present tech support issues.

When we first started, there were two lists. One called DSP-93 and one
called DSP. We had hoped at that time we would see build info/construction
q&a for the DSP-93 on this list and programming and the like on the DSP
list.

How it worked though was that no one used DSP, since all the interest was
getting those first 200 units operatinal. With the EVM sales, it has given
us the chance to get the DSP list going again while also moving some of the
general DSP discussion from HF SIG over (hopefully). Espically, since we
seem to be moving to a more generic platform for everyone.

To your answer your question on volume -- it is relative for the DSP-93.
Most of the traffic happens here when a batch of kits go out or when Frank
has some new widget he has done. Eventually, we will probably shutdown the
list, after the sales of kits are completed.

Anyway, I think we will keep DSP-93 and hopefully the larger issues of DSP

development will move slowly over to the DSP list. Would hate to delude
the future robust DSP list with I get the following memory error on my
DSP-93...can anyone help.

Cheers - Greg, WD5IVD

>
> In article <3279F0AC.3A17@amsat.org> you wrote:
> :
> : Shouldn't these discussions be taken to dsp@tapr.org. They are off topic
> : for dsp-93.
>
> Personally, I think that dsp-93 should be shut down, and the membership folded
> in to the newer, less specific dsp list. Neither has much volume.
>
> Bdale, N3EUA
>
>

4. Re: [DSP-93:2377]

From: "Antonio Esteve" <ea5ec@redestb.es>
Date: Mon, 11 Jan 1993 02:18:58 +0100
To: dsp-93@tapr.org
Message-ID: <2B50CB01.5135@redestb.es>
Rendered body type: text/plain

Antonio Esteve
UNSUSCRIBE
ea5ec@redestb.es

5. Message for Owners of the PacComm TNC for the TAPR/AMSAT DSP-93

From: Gwyn Reedy <gwyn@paccomm.com>
Date: Sat, 2 Nov 1996 11:21:54 -0500
To: "'AMSAT-BB'" <amsat-bb@amsat.org>, "'DSP-93'" <dsp-93@tapr.org>
Cc: "'file'" <file@paccomm.com>
Message-ID: <01BBC8B0.0ED28EA0@gwyn.paccomm.com>
Rendered body type: text/plain

Open letter to all owners of the PacComm TNC for the TAPR/AMSAT DSP-93.

I will be attending the AMSAT Annual Meeting in Tucson, both as a licensed
amateur member of AMSAT and as a PacComm representative.

I will bring along upgrade kits and updated versions of the referenced TNC
for the benefit of existing owners.

The updated versions of the TNC have the following upgrade kits already
installed. The kit does the following:

1. Adds a serial RAM for holding key TNC parameters as a supplement to the
battery backed memory.

2. Implements flow control hardware lines on the 'passthru' port (the port
through which code and results are exchanged with the DSP-93 board.

3. An updated EPROM which has code to support the above two functions as
well as full KISS support.

My intent is to exchange units with any existing owner who has brought his
TNC to the meeting. Priority will be given to overseas (actually out of the
country) owners where shipping difficulties are more of a factor.

Anyone who does not bring their unit along, or does not want to have to
return the older unit may take an upgrade kit and perform the modifications
themselves.

There is no charge for either approach.

Be advised that this upgrade substantially solves the problems reported
with the TNC. There remain some difficulties with the PASSTHRU functions
which are reasonably believed to lie with the DSP-93 firmware and these
will have to be addressed by the DSP-93 development group.

Gwyn Reedy, W1BEL
PacComm Packet Radio Systems
http://www.paccomm.com

6. Re: [DSP-93:2383] Message for Owners of the PacComm TNC for the

From: "Wolf D. Hoeller" <Wolf.Hoeller@uibk.ac.at>
Date: Sat, 2 Nov 1996 20:49:01 MET-2
To: dsp-93@tapr.org
Message-ID: <199611021950.AA23546@uibk.ac.at>
Rendered body type: text/plain

Hi Gwyn,

> My intent is to exchange units with any existing owner who has brought his
> TNC to the meeting. Priority will be given to overseas (actually out of the
> country) owners where shipping difficulties are more of a factor.
>
> Anyone who does not bring their unit along, or does not want to have to
> return the older unit may take an upgrade kit and perform the modifications
> themselves.

Is it possible to send me such an upgrade kit? How much will it cost?

Wolf D. Hoeller, OE7FTJ
AMSAT-OE
Internet: oe7ftj@amsat.org
AX.25: oe7ftj@oe7xbb.aut.eu
---

7. Re: [DSP-93:2383] Message for Owners of the PacComm TNC for the TAPR/AMSAT DSP-93

From: Dave Lamont <dlamont@central.co.nz>
Date: Sat, 02 Nov 1996 20:46:09 +0000
To: dsp-93@tapr.org
Message-ID: <327BB311.563E@central.co.nz>
Rendered body type: text/plain

Gwyn Reedy wrote:
>
> Open letter to all owners of the PacComm TNC for the TAPR/AMSAT DSP-93.
>
> I will be attending the AMSAT Annual Meeting in Tucson, both as a licensed
> amateur member of AMSAT and as a PacComm representative.
>
> I will bring along upgrade kits and updated versions of the referenced TNC
> for the benefit of existing owners.
>
> The updated versions of the TNC have the following upgrade kits already
> installed. The kit does the following:
>
> 1. Adds a serial RAM for holding key TNC parameters as a supplement to the
> battery backed memory.
>
> 2. Implements flow control hardware lines on the 'passthru' port (the port
> through which code and results are exchanged with the DSP-93 board.
>
> 3. An updated EPROM which has code to support the above two functions as
> well as full KISS support.
>
> My intent is to exchange units with any existing owner who has brought his
> TNC to the meeting. Priority will be given to overseas (actually out of the
> country) owners where shipping difficulties are more of a factor.
>
> Anyone who does not bring their unit along, or does not want to have to
> return the older unit may take an upgrade kit and perform the modifications
> themselves.
>
> There is no charge for either approach.
>
> Be advised that this upgrade substantially solves the problems reported
> with the TNC. There remain some difficulties with the PASSTHRU functions
> which are reasonably believed to lie with the DSP-93 firmware and these
> will have to be addressed by the DSP-93 development group.
>
> Gwyn Reedy, W1BEL
> PacComm Packet Radio Systems
> http://www.paccomm.com

Hi Gwyn,

Please send me a modification kit as described above. I have passed on

your e-maIL to ZL4TIL and ZL1ACO via the satellite.

Can I presume that you are referring to the DSP93's apparent
inability to handle data reliably at 19600?? I reworked DSPLOAD
with data pacing included which fixed my unit nearly. The fixed
DSPLOAD and a utility to automate a satellite station using
the DSP/Paccomm unit was posted to the TAPR server some time ago.

Please respond

73

Dave

D.H. Lamont
510 Kennedy Road
Napier
New Zealand. 4001

Internet   dlamont@central.co.nz

8. Re: [DSP-93:2383] Message for Owners of the PacComm TNC for the TAPR/AMSAT DSP-93

From: py4lf@bis.com.br (Julio Morais)
Date: Sun, 03 Nov 1996 11:17:43 -0300
To: dsp-93@tapr.org
Message-ID: <9611031330.AA06010@brasilnet.com.br>
Rendered body type: text/plain

>My intent is to exchange units with any existing owner who has brought his
>TNC to the meeting. Priority will be given to overseas (actually out of the
>country) owners where shipping difficulties are more of a factor.
>
>Anyone who does not bring their unit along, or does not want to have to
>return the older unit may take an upgrade kit and perform the modifications
>themselves.
>
>There is no charge for either approach.
>
>Be advised that this upgrade substantially solves the problems reported
>with the TNC. There remain some difficulties with the PASSTHRU functions
>which are reasonably believed to lie with the DSP-93 firmware and these
>will have to be addressed by the DSP-93 development group.
>
>
>Gwyn Reedy, W1BEL
>PacComm Packet Radio Systems
>http://www.paccomm.com
>
>
>

......Hello Gwyn! I´ll appreceat to receive all necessary to do the upgrade .
73´s!
****
* PY4LF ..... AMSAT 26515 ..... TAPR 4962 ..... *
* Júlio M. C. Morais // R. Beta 363 // 35160-070*
* Ipatinga // MG // BRAZIL   *
* Fone:55-31-8214084 // Fax:55-31-8293063   *
****

9. DSP-93 problem with AIO

From: Shuichiro Hirakawa <hirakawa@da2.so-net.or.jp>
Date: Sun, 3 Nov 1996 23:23:05 +0900
To: "'TAPR mail list'" <dsp-93@tapr.org>
Cc: "'□□ (Nifty Serve)'" <gff00711@niftyserve.or.jp>
Message-ID: <01BBC9DE.21DA54E0@ppp8a82.pppp.ap.so-net.or.jp>
Rendered body type: text/plain

Can anyone help me?

I finished building DSP-93 and tested in accordance with assembly manual.
But I Have problem running TESTRAMP and TESTBUZZ. All other tests
worked without any problem. When I run TESTRAMP and TEATBUZZ, LEDs
flash as explained in the manual, but there is no output from speaker or
oscilloscope check points. I obtained same result from running the test
programs both D93WE or firmware.
I tested output signal from U208 (TLC32044) at pin 21 and 22 with

oscilloscope, no signal was observed.

Checked soldering and other connections, they looked OK. Found no
incorrect installation of components.

Further, I tested all pins of U208 with oscilloscope

1: -5V
2: +4V
3: pulse 120 micro sec. (halved when running an application)
4: pulse 120 micro sec. (halved when running an application)
5: pulse 120 micro sec. (halved when running an application)
The waive form look like this _------_------_------
pins 3, 4, 5 have different duty cycle
6: 5Mhz clock (doubled when running an application)
7: +5V
8: +3.1V
9: 0V
10: 1.25Mhz clock (doubled when running an application)
11: pulse 120 micro sec. (halved when running an application)
   The waive form look like this --_-_--------_-_--------_-_-----
12: +3.2V
13: +5V
14: pulse 120 micro sec. (halved when running an application)
   The waive form look like this --_-_--------_-_--------_-_-----
   But pulse width is different from pin 11.
15: 0V
16: 0V
17: 0V
18: 0V
19: -5V
20: +5V
21: 0V
22: 0V
23: 0V
24: 0V
25: 0V
26: 0V
27: 0V
28: 0V

On checking TAPR CD-ROM, I found a mail discussing on similar problem. It says;

>To start would you confirm that pin 2 of U208, the AIO, is low after a
>reset. Then download a program which uses the AIO and make sure that pin 2
>goes high. Let me know what you find here.

This does not happen to my DSP-93, always high (4 volts).
So I checked signal of pins of U210 (PAL).

1: 0V
2: 4V
3: pulse 120 micro sec. Same as pin 14 of U208
4: 0V
5: pulse 120 micro sec. Same as pin 5 of U208
6: pulse 120 micro sec. Same as pin 4 of U208
7: pulse (data bus of DSP chip)
8: 1.25Mhz clock
9: pulse (data bus of DSP chip)
10: 0V
11: 0V
12: 3.2V
13: 0.6V
14: 0.6V
15: 4V
16: 4V
17: 5V
18: 5V
19: 0V
20: 5V

They seem OK as far as I can read from the schematic.
May be defective PAL caused this problem?
I cannot check it any further because no data sheet of TLC32044
or program of the PAL available here.

Please, anyone can tell me what possibly wrong or what else to check.

SHUICHIRO HIRAKAWA
INTERNET : hirakawa@da2.so-net.or.jp
NIFTY : GFF00711
TEL & FAX : +81-(0)-463-24-6483
HAM CALL : JA6SNK/1

10. Re: [DSP-93:2387] DSP-93 problem with AIO

From: "Stacey E. Mills, M.D." <sem2r@avery.med.virginia.edu>
Date: Sun, 03 Nov 1996 12:58:28 -0500
To: dsp-93@tapr.org
Message-ID: <2.2.32.19961103175828.00e222a4@avery.med.virginia.edu>
Rendered body type: text/plain

At 08:29 AM 11/3/96 -0600, you wrote:
>Can anyone help me?
>
>I finished building DSP-93 and tested in accordance with assembly manual.
>But I Have problem running TESTRAMP and TESTBUZZ. All other tests
>worked without any problem. When I run TESTRAMP and TEATBUZZ, LEDs
>flash as explained in the manual, but there is no output from speaker or
>oscilloscope check points. I obtained same result from running the test
>programs both D93WE or firmware.
>I tested output signal from U208 (TLC32044) at pin 21 and 22 with
>oscilloscope, no signal was observed.
>

I had exactly the same problem. Since I have another functioning DSP-93
from the first kit group, I was able to do some checking and confirm that my
U210 was non-functioning. I think some of these may have been incorrectly
programmed. I dropped a note to Greg about this yesterday...I hope there
aren't too many of us out here with this problem.

Best wishes.

--de WB4QKT
Stacey E. (Chuck) Mills
E-mail: sem2r@avery.med.virginia.edu

11. Re: [DSP-93:2388] Re: DSP-93 problem with AIO

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Sun, 03 Nov 1996 14:05:04 -0600
To: dsp-93@tapr.org
Message-ID: <327CFAF0.1137@amsat.org>
Rendered body type: text/plain

I went back and re-tested my DSP-93 which has the latest batch of GALs,
e.g., U210, in it.

I had no problem running TESTRAMP and TESTBUZZ. So at least not all
U210s are bad.

Ron

Stacey E. Mills, M.D. wrote:
>
> At 08:29 AM 11/3/96 -0600, you wrote:
> >Can anyone help me?
> >
> >I finished building DSP-93 and tested in accordance with assembly manual.
> >But I Have problem running TESTRAMP and TESTBUZZ. All other tests
> >worked without any problem. When I run TESTRAMP and TEATBUZZ, LEDs
> >flash as explained in the manual, but there is no output from speaker or
> >oscilloscope check points. I obtained same result from running the test
> >programs both D93WE or firmware.
> >I tested output signal from U208 (TLC32044) at pin 21 and 22 with
> >oscilloscope, no signal was observed.
> >
>
> I had exactly the same problem. Since I have another functioning DSP-93
> from the first kit group, I was able to do some checking and confirm that my
> U210 was non-functioning. I think some of these may have been incorrectly
> programmed. I dropped a note to Greg about this yesterday...I hope there
> aren't too many of us out here with this problem.
>
> Best wishes.
> -------
> --de WB4QKT

> Stacey E. (Chuck) Mills
> E-mail: sem2r@avery.med.virginia.edu

--
Ron W5RKN

also:
rparsons@bga.com

12. TAPR MODS

From: Neill Grusning <xtr14204901@xtra.co.nz>
Date: Sun, 03 Nov 1996 20:15:26 +0000
To: Gwyn Reedy <dsp-93@tapr.org>
Message-ID: <327CFD5E.F99@xtra.co.nz>
Rendered body type: text/plain

ATTENTION; Gwyn Reedy.
Hi, Gwyn. I received a message from DAve, ZL2AMD, re the mods for the
TAPR tnc, for the DSP-93. Would you please send me a kit as described in
your message to him.
QTH:- H.N.Grusning
      28 Ocean Beach Road
      Tairua via Thames.
      Mew Zealand. 2853

Thanks. Neill, ZL1ACO.

13. RE: [DSP-93:2384] Re: Message for Owners of the PacComm TNC for the

From: Gwyn Reedy <gwyn@paccomm.com>
Date: Mon, 4 Nov 1996 06:09:55 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BBCA16.CDC435E0@gwyn.paccomm.com>
Rendered body type: text/plain

On Saturday, November 02, 1996 8:57 AM, Wolf D. Hoeller[SMTP:Wolf.Hoeller@uibk.ac.at] wrote:
>Hi Gwyn,
>
>> My intent is to exchange units with any existing owner who has brought his
>> TNC to the meeting. Priority will be given to overseas (actually out of the
>> country) owners where shipping difficulties are more of a factor.
>>
>> Anyone who does not bring their unit along, or does not want to have to
>> return the older unit may take an upgrade kit and perform the modifications
>> themselves.
>
>Is it possible to send me such an upgrade kit? How much will it cost?
>
>
>>-----------------------------
> Wolf D. Hoeller, OE7FTJ
> AMSAT-OE
> Internet: oe7ftj@amsat.org
> AX.25: oe7ftj@oe7xbb.aut.eu
>-----------------------------
>
>
>

Yes, we will mail an upgrade kit at no charge to any owner who wishes one.

To install the kit you will need a magnifying glass and small-tip soldering iron.

Gwyn Reedy, W1BEL
PacComm Packet Radio Systems
http://www.paccomm.com


```
begin 600 WINMAIL.DAT
M>)\^(CD+`0:0" `$`````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
M`@````(``@`!!) &``@!```!````# ````,``# #````"P`/#@`````"`?\/
M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $`````5````
M4TU44#I$4U M.3- 5$%04BY/4D<`````P``.0`````+`$ Z`0````(!]@\!
M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
M`#$(`02 `0!$````4D4Z(%M$4U M.3,Z,C,X-%T@4F4Z($UE<W-A9V4@9F]R
M($]W;F5R<R!O9B!T:&4@4&%C0V]M;2!43D,@9F]R('1H90`2%0$%@ ,`#@``
M`,P'"P`$``8`"0`W``$`*0$!(( #``X```#,!PL`! `&``@`%0`!``8!`0F
```

```
M`0`A````,45!1C<P-#=",#,T1# Q,3@P1#0P,#0P,#4R.4)#1#<`\@8!`Y &
M`/0%```2````"P`C``````#`"8``````L`*0``````P`V``````! `#D`
M`.=\M4#*NP$>`' ``0```$0```!213H@6T134"TY,SHR,S@T72!293H@365S
M<V%G92!F;W(@3W=N97)S(&]F('1H92!086-#;VUM(%1.0R!F;W(@=&AE``(!
M<0`!````%@````&[RD"U9$=PKQ\TL!'0@-0`0 4IO-<``!X`'@P!````!0``
M`%--5% `````'@`?# $````1````9W=Y;D!P86-C;VUM+F-O;0`````#``80
MSFIQ$P,`!Q#Z`@``'@`($ $```!E````3TY305154D1!62Q.3U9%34)%4C R
M+#$Y.38X.C4W04TL5T],1D1(3T5,3$524TU44#I73TQ&2$]%3$Q%4D!524)+
M04-!5%=23U1%.DA)1U=93BQ-64E.5$5.5$E35$]%6$-(00`````"``0D0`0``
M`% $``!,! ``N0D``$Q:1G5U,ON3_P`*`0\"%0*H!>L"@P!0`O()`@!C: K
M<V5T,C<&``;#`H,R`\4"`'!R0G$1XG-T96T"@S,W`N0'$P*#-!+,#]]F-5L2
MS!3(-A+'$74P%+9]%PJ ",\)V3L;?S$R..$<GV4R-34"@ J!#;'!"V!N9S$P
M,Q10"P/P;&DS-@WP"U47<@P!LF,2H"!/`Z &$'0(<)!D87DL![!O=A/@(F($
MD" P,B+ ,3F .38@.#HU-Q2P"DTBP%<&\&8@1"Y ($AO96QL!)!;H%--5% Z
M))(N)17 0'5I8FLN`- F\+!T72!W`V 3T#H*A'X^"T858B&C`% 34">18P$%
M0$AI($=W>6[V+ J$(.\R*#\I2"I_*X_E+)\^!=!Y( N $] ",(,Q$ 0@=&\@
M97@1<=$?T&4@=0,`= 0@`_!X=&@@`' Q`#'P! !T00N 9R!O=VXC07<N:#'0
M$8 $(&(#8'5G^F@%0&@QD2VO+K\OSS#0^%1.0S&R,P`R8 > $<#[,\$D\% %
M$ 6P,J Q``/PYR5 -- R8&=I(P`#H#'!=R+Q$:$TL2@`T")@!T!L]S$`"& %
M0&\DP#EB-:\VOP\WSS#0!: R@'1R>2E/,_0RP3EP&X @<S5@< IP,\)D!I!F
M:6-U_FPSL >1"L Y@06P,F ]0=AA(&8\<06P+CV_/L^_/]\PT$4?1B]'/S#0
M03- MP(@,F T8F0E( 0@;B>0]S31,\(Y86D%P#*",R ;$.\?T"+ !;%,9W<`
M< 5 ,<'_$8 C`#&R2&])?TJ/,- ;@/\B83N!.7$&\ 2!3:0`P#$`30&0:S)@
M`Y%U< G 80D-L"!K3=)N9"!P\P20`A!R;3E4!' &D$,P_R)0.E &,5 _44]2
M7S#0.6'J;1&P;",`<T4/64]:7V\MGUU/7E\%0$D$($W1</YO!! FP"50,;(1
ML%9Q!X!M0E!U$7!5;3\E`0?@;=]D8CK#3=$%H!/ /U]_8(]_89]G#V@?:2]J
M/VM/;%\@OBUPKW%I;6]N?V^/("2.@2+ 3T4W1E1*<G\/<X]TGW6@)%!3050M
MWW;0=S]X3WE?=:!),3$$H"41P#HS\&4W`8!J0-9A6\ B4"X%L&=[#WP?<WTO
M>F%8+A\`?M=^\7B,8F(F\#T0+F5U?___@0^"'W"?<:^%/X9/;)^*3_^+7XQO
MC7^.CX^?D*(@7R%H[0J%60>0(L!W3 $ZT@# _P,157X%0$RP0/ 1@3)1,<'_
M,S(T" /Q.7 $($OA7#4*A?Y4,= +@!/ /+$Y4U8B2]"^=3JT-" )@$1Q`,!G
M`P!T9GDSPF<+8 015F)SZP# )4 M,[!P0E!4,S/"_TV `B D\)K:FMH+-QD"
M`= /*A,'\)UQ(K%7,4)%VDP*HU `T A0;5<`I*'[54 %0%)5X#I0$Y43( JR
M@34P=' Z+R]WIR#:+@JP8P6@I/ NIY&:] )]J( #`! 0``````,`$1 `````
M0 `',"!ZB7U RKL!0 `(,"!ZB7U RKL!'@`]``$````%````4D4Z( ````#(
!W@`'
`
end
```

14. RE: [DSP-93:2385] Re: Message for Owners of the PacComm TNC for the TAPR/AMSAT DSP-93

From: Gwyn Reedy <gwyn@paccomm.com>
Date: Mon, 4 Nov 1996 06:18:06 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Cc: "'file'" <file@paccomm.com>
Message-ID: <01BBCA17.F397EFE0@gwyn.paccomm.com>
Rendered body type: text/plain

On Saturday, November 02, 1996 9:53 AM, Dave
Lamont[SMTP:dlamont@central.co.nz] wrote:
>Hi Gwyn,
>
>Please send me a modification kit as described above. I have passed on
>your e-maIL to ZL4TIL and ZL1ACO via the satellite.
>
>Can I presume that you are referring to the DSP93's apparent
>inability to handle data reliably at 19600?? I reworked DSPLOAD
>with data pacing included which fixed my unit nearly. The fixed
>DSPLOAD and a utility to automate a satellite station using
>the DSP/Paccomm unit was posted to the TAPR server some time ago.
>
>Please respond
>
>73
>Dave
>
>D.H. Lamont
>510 Kennedy Road
>Napier
>New Zealand. 4001

Good to hear from you again without the high frustration level. I will send
the modification kit as requested.

The DSP Load Port modifications include adding hardware flow control lines
(kludged up with a parallel I/O bit since full hardware flow control is not
supported on that 181 port) and vastly increasing the buffer sizes
allocated by the EPROM.

This makes the interface with the load port work quite well, however some
part of the menu display code fails to shut off when signaled by the
hardware control line. Ron, W5RKN has the details.

I was aware of the rework you did on the DSP-93 code.
Gwyn Reedy, W1BEL
PacComm Packet Radio Systems
http://www.paccomm.com

```
begin 600 WINMAIL.DAT
M>)\^(@H+`0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
M`@````(``@`!!) &`"0"```"````# ````,``# $````"P`/#@``````"`?\/
M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
M<F<`4TU44 !D<W M.3- =&%P<BYO<F<``````'@`", $````%````4TU44 ``
M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
M````! ````````0,`````P``, 4````+``\.`0````(!_P\!````7P``````
M``"U.\+ +'<0&J&\" `K*E;"%0```&\X(?*DJ,\1@-$`0 4IO-<D@ ``````
M`($K'Z2^HQ 9G6X`W0$/5 (`````9FEL90!33510`&9I;&5 <&%C8V]M;2YC
M;VT``!X``C !````!0```%--5% ``````'@`#, $````1````9FEL94!P86-C
M;VUM+F-O;0`````#`!4,`@````,`_@\&````'@`!, $`````````)V9I;&4G
M```"`0LP`0```!8```!33510.D9)3$5 4$%#0T]-32Y#3TT````#```Y````
M``L`0#H``````@'V#P$````$````````!0I;`0B !P`8````25!-+DUI8W)O
M<V]F="!-86EL+DYO=&4`,0@!!( !`%8```!213H@6T134"TY,SHR,S@U72!2
M93H@365S<V%G92!F;W(@3W=N97)S(&]F('1H92!086-#;VUM(%1.0R!F;W(@
M=&AE(%1!4%(O04U3050@1%-0+3DS`*\9`06 `P`.````S <+``0`!@`2``8`
M`0`!`0$@@ ,`#@```,P'"P`$``8`"P`/``$``P$!"8 !`"$````R,D%&-S T
M-T(P,S1$,#$Q.#!$-# P-# P-3(Y0D-$-P#@!@$#D 8`_ 8``!(````+`",`
M``````,`)@```````"P`I```````#`#8``````$ `.0"@;7;:0<J[`1X`< `!
M````5@```%)%.B!;1%-0+3DS.C(S.#5=(%)E.B!-97-S86=E(&9O<B!/=VYE
M<G,@;V8@=&AE(%!A8T-O;6T@5$Y#(&9O<B!T:&4@5$%04B]!35-!5"!$4U M
M.3,````"`7$``0```!8````!N\I!VDU'<*\C-+ 1T(#4`$ %*;S7```>`!X,
M`0````4```!33510`````!X`'PP!````$0```&=W>6Y <&%C8V]M;2YC;VT`
M`````P`&$"Y$,WD#``<0%P0``!X`"! !````90```$].4T%455)$05DL3D]6
M14U"15(P,BPQ.3DV.3HU,T%-+$1!5D5,04U/3E133510.D1,04U/3E1 0T5.
M5%)!3$-/3EI74D]413I(24=764XL4$Q%05-%4T5.1$U%04U/1$E&24,`````
M`@$)$ $```!"!0``/@4``+D*``!,6D9U-=]9Q_\`"@$/`A4"J 7K`H,`4 +R
M"0(`8V@*P'-E=#(W!@`&PP*#,@/%`@!P<D)Q$>)S=&5M`H,S-P+D!Q,"@S02
MS _?9C5;$LP4R#82QQ%U,!2V?1<*@ C/"=D[&W\Q,CCA')]E,C4U`H *@0VQ
MP0M@;F<Q,#,44 L#\&QI,S8-\ M5%W(,`;)C$J @3P.@!A!T"'"09&%Y+ >P
M;W83X")B!) @,#(BP#$Y@#DV(#DZ-3,4L!)-(L!$82,`($QA`P1@`C!;4TU4
M4#HF9 M@)0) 8PGP='(%!T N!: N;GI=(-9W`V 3T#H*A#X+1A5B+R&C`% 3
M4"<Q8P5 2&G ($=W>6XL"H0@[SXR)]\HZ"H?*R\L/R!0*&QE81&P(!&P;F1R
M( > (&$Q, 1P!I!IBF,B4&D"("!K:05 _3"P( VP!/(C,#$@`: B\? N($D@
M$8 DL0JP!!"?,T$R,2U/+E\O;R!Y"&$((&4M`,!)3"!TP&\@6DPT5#C!`' #
M,2 Y(#%!0T\@=IL',#C@:##1(E!E;""0_1/0+C3_-@\W'SMO/'\]C[P@0P.1
M,^ 34 >0=3%!7SJ (E X(C%@&X @&X!F'P20!1 ?T#CB.H)$4U#8.3,G!" Q
M8' *L28Q]SZ?/Z] OR +@ &@`Q R</YY..(1@#$0,) RP")0,7#W&X @D &@
M;$E@0M$CL"# 6# _/S/1&X!W!;!KPS-!1)%,3T%$1:]&O[='SR<`,G!H2A0*
ML&-#XIT+@&,*0 VP,2!W:#'@JU! ,=!X,T%M26!U`P"U!4!N,*!R2M SP%0Z
MD7]2$TS?3>]._TQ6.8,Q<'7[,A!)-F%8( -Q$] Q83K']S#@`9 R$W4`D!_0
M5 ]5'S-6+T1&+U `T 6@;6WE4I1W,J%P;Q/!,2!$)=!405!2,.%R(P`%P-YS
M`W!"D0=Q,6!G)K!:__]<#UT?8D]C7V1O,'9"05_ ?S$097]FCV>?:9]JKVN_
M('PW,VS/;=]N[R2#<(\R'R=_:\]P/W%/<E]$+DB?,\ DY';?=^]X_R U'_!L
M($L)\%+P9$E@" !A[VF/>\]\WP5 3D4@")%_#[> 'X$O![-:,* ?L60SP'HT
M2V Q@J8+&70N"H5'?F\$<$ES4P%2``-A0O1G7PMQ4 ,(8%X44<!G4?%R_UJ@
M)E$R$S"0(P`F@#/1`_"_.P`PY#J",9\RH1N <0I0_U_B8C4*A5-R1)$DT'[1
M,'#?&R&.BP0@424Q8&2.L$/QW1&!9%^ 0U$?H&\'X 6@GR9!!O"-$ N !Y$H
M:U%1\F<S075P4 10DB9A,)#Y`R!)+SH@21 %0%JQ)B#]4@!UC=&4/Y5#! !2
MX"<P/S#@EH!?P `@-)1"LS$X5C%?L0`@*3F#=C"P=#]*T5$A&X PL$/C.I%B
M=:,-T&$R:7H'D9=1;S'Q+3-!8DEA.I%%8,!/3?\SP#3ED->:00# 3" $(#J"
M\PN $]!R9@#0),!0$SJ"WQL0D>&:XB<`3 $@C_!9XOYW.O$BP(N I+!A)PJQ
M!4#\;V:.1 GP0R".L&E "V!_26 %H).1HH #$*'1.0!S?FB+H:8PID!1L GP
MF"%G_TCP,)"?9YCGE1HSP @`*?# (%<U4DM._&AU+\-L &0I^&0;(V1,J%A
MF2._IC5+U$+SCK";-41S+43 _Z=C,\"(R@LW&0(!T"FS!_"'">!^D*O1,4)%
M3 JCOUZQ"%!?`5ZQ3" %0%)^X"\R(!.5$R *LF@"0' ZZ"\O=[<@+E"Q7N(F
MD0IMB.1]N( ```,`$! ``````P`1$ ````! ``<P(%LGY4#*NP% ``@P(%LG
;Y4#*NP$>`#T``0````4```!213H@`````")!
`
end
```

15. Re: [DSP-93:2383] Message for Owners of the PacComm TNC for the TAPR/AMSAT DSP-93

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Mon, 04 Nov 1996 07:37:12 -0600
To: dsp-93@tapr.org
Message-ID: <327DF188.6956@amsat.org>

Rendered body type: text/plain

Gwyn Reedy wrote:
>
> Open letter to all owners of the PacComm TNC for the TAPR/AMSAT DSP-93.
>

Gwyn,

Please send me an upgrade kit for the DSP-93/TNC.

Ron Parsons
7507 Downridge Dr.
Austin, TX 78731-1105

--
Ron W5RKN

also:
rparsons@bga.com

16. Upgrade Kit for the PacComm TNC for the TAPR/AMSAT DSP-93

From: Gwyn Reedy <gwyn@paccomm.com>
Date: Mon, 4 Nov 1996 10:09:41 -0500
To: "'AMSAT-BB'" <amsat-bb@amsat.org>, "'DSP-93'" <dsp-93@tapr.org>
Message-ID: <01BBCA38.4CAB61A0@gwyn.paccomm.com>
Rendered body type: text/plain

Reference is made to the announcement about this subject posted last week.

I failed to mention in that announcement that persons not attending the
AMSAT annual meeting may obtain the upgrade kit direct from PacComm or may
have their unit upgraded at the factory. Either method is without charge.

The modifications are not overly complicated but will require the use of a
magnifying glass (or young eyes) to allow a trace cut and tacking a wire to
a feed-through via. A small tipped soldering iron is also necessary.

If you choose to send your unit back, make sure you include shipping
instructions for its return. We ship UPS surface unless you specify parcel
post. A name and phone number help too. (Don't laugh, we get repairs with
no name and we have to wait till the guy calls in to find out where to send
it!)

Thanks for the use of this reflector for dissemination of this information.

Gwyn Reedy, W1BEL
PacComm Packet Radio Systems
http://www.paccomm.com

17. RE: [DSP-93:2393] Re: Message for Owners of the PacComm TNC for the TAPR/AMSAT DSP-93

From: Gwyn Reedy <gwyn@paccomm.com>
Date: Mon, 4 Nov 1996 10:48:12 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BBCA3D.B27BE360@gwyn.paccomm.com>
Rendered body type: text/plain

On Monday, November 04, 1996 3:30 AM, Ronald G. Parsons[SMTP:w5rkn@amsat.org] wrote:
>Gwyn Reedy wrote:
>>
>> Open letter to all owners of the PacComm TNC for the TAPR/AMSAT DSP-93.
>>
>
>Gwyn,
>
>Please send me an upgrade kit for the DSP-93/TNC.
>
>Ron Parsons
>7507 Downridge Dr.
>Austin, TX 78731-1105
>
>
>--
>Ron W5RKN
>
>also:

```
>rparsons@bga.com
>
>
>
>

Message received.
Gwyn

begin 600 WINMAIL.DAT
M>)\^(A8/`0:0" `$`````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
M`@`````(``@`!!) &``@!```!````# ````,``# #`````"P`/#@`````"`?\/
M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $`````5````
M4TU44#I$4U M.3- 5$%04BY/4D<`````P``.0`````+`$ Z`0````(!]@\!
M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
M`#$(`02 `0!6````4D4Z(%M$4U M.3,Z,C,Y,UT@4F4Z($UE<W-A9V4@9F]R
M($]W;F5R<R!O9B!T:&4@4&%C0V]M;2!43D,@9F]R('1H92!405!2+T%-4T%4
M($134"TY,P"N&0$%@ ,`#@```,P'"P`$``H`, `,``$`*0$!(( #``X```#,
M!PL`! `*`"\``*0`!`$4!`0F `0`A````-C5!1C<P-#=",#,T1# Q,3@P1#0P
M,#0P,#4R.4)#1#<`YP8!`Y &`$P$```2````"P`C```````#`"8```````L`
M*0```````P`V``````! `#D`8.?)E6?*NP$>`' ``0```%8```!213H@6T13
M4"TY,SHR,SDS72!293H@365S<V%G92!F;W(@3W=N97)S(&]F('1H92!086-#
M;VUM(%1.0R!F;W(@=&AE(%1!4%(O04U3050@1%-0+3DS`````@%Q``$````6
M`````;O*9Y7 1W"O9C2P$=" U ! !2F\UP``'@`># $````%````4TU44 ``
M```>`!\,`0```!$```!G=WEN0'!A8V-O;6TN8V]M`````,`!A &;J_D`P`'
M$!D!```>``@0`0```&4```!/3DU/3D1!62Q.3U9%34)%4C T+#$Y.38S.C,P
M04TL4D].04Q$1U!!4E-/3E-33510.E<U4DM.0$%-4T%43U)'5U)/5$4Z1U=9
M3E)%14195U)/5$4Z3U!%3DQ%5%1%4E1/04Q,``````(!"1 !````E (``) "
M``"*!P``3%I&=<Z>*)7_``H!#P(5`J@%ZP*#`% "\@D"`&-H"L!S970R-P8`
M!L,"@S(#Q0(`<')"<1'B<W1E;0*#,S<"Y <3`H,T$LP/WV8UNQ+,%,5]"H (
MSPG9.QFO"#$R.!K/93(U-0\"@ J!#;$+8&YG,3"&,Q10"P-L:3,V#?"7"U47
M<@P!8Q*@($\#H$)-`B!D87DL![!OBG83X&($D" P-"#0`#$Y.38@,SHS6C 4
ML$T@T @`;@= 9& @1RX@4!&1`B!S`%M33510.G<U`')K;D!A;7-AA'0N!;!G
M72!W`V#U$] Z"H4^"T858A_3`%"+$U E06,%0$=W>0.@\E()X&1Y)1P?'Q'@
M)?]Y)PD^("C/*=\J[ROS3W)P"? @;!' $] %P'2,;R '0 ,@;W=N!)!)!"!O
M9C!P:&4C,6,!"%!M;2!43D,@!P(0,&$QH51!4%(O`2)@4T%4($134/ M.3,N
M+$\M7RYO*_]_-/\V#R<V-[\XSSG?)X4L?SL?/"\]/SKO/Z] OR=44+4P$&$1
ML" 1L""0( > 4S"@`Z!U< G 80VP(-QK:05 ,I8SQ"\R430O_T,O1#]![TEO
M2G\G12*A(S8/2_]-#TX?)X$W-3 WIS.P,/$%$&1G1\%R2(_G40]2'R=R0743
MP N (- $5%A34#@W,S$M^C$>(#54CU6?5J]+SUH?GULO7#]=3UY?)R<M+5_O
M!V#_8@]/%E<U4DM._V./9)]EKU_/:%]I;R=4!T#?(W HOVO?;.\G<G(*L2-R
MH$!B9V$N!:!M;H__;Y]PKVJO<\]TWW7O=O]X#_]Y'WHO>S]\3PK6'L\?U0J%
M'DT'D"205"$9L&-E:;TA$&14=B>R"H48T0"%D ,`$! ``````P`1$ ````!
M``<PH)</@V?*NP% ``@PH)</@V?*NP$>`#T``0````4```!213H@`````!(\
`
end
```

18. RE:DSP-93 problem with AIO

From: "Wheatley, Maurice" <mwheatle@TRSYSTEMS.com>
Date: Mon, 4 Nov 1996 11:58:42 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <c=US%a=_%p=TR_SYSTEMS%l=WEBSERVER2-961104165842Z-99@WWW.TRSYSTEMS.COM>
Rendered body type: text/plain

I had the same problem with my DSP-93 kit and it was a partially
programmed U210. I made a guess at the equations used in it and was
able to get the unit up and going. Perhaps the correct .JED file could
be posted for those of us who can program the parts.

I also found on my unit a short on the bottom side of board 2 between
the processor R/W line and D0 pin of JP201. The short was actually a
sliver of copper trace under the soldermask. The symptom of course was
a very unhappy processor.

Other than these two initial glitches, everything is running fine. If
only my code were as easy to get running!;>)

Moe Wheatley AE4JY
mwheatle@trsystems.com

```
>----------
>From:  Shuichiro Hirakawa[SMTP:hirakawa@da2.so-net.or.jp]
>Sent:  Sunday, November 03, 1996 9:29 AM
>To:    dsp-93@tapr.org
>Subject:       [DSP-93:2387] DSP-93 problem with AIO
>
```

>Can anyone help me?
>
>I finished building DSP-93 and tested in accordance with assembly
>manual.
>But I Have problem running TESTRAMP and TESTBUZZ. All other tests
>worked without any problem. When I run TESTRAMP and TEATBUZZ, LEDs
>flash as explained in the manual, but there is no output from speaker
>or
>oscilloscope check points. I obtained same result from running the test
>
>programs both D93WE or firmware.
>I tested output signal from U208 (TLC32044) at pin 21 and 22 with
>oscilloscope, no signal was observed.
....
>.............................
>
>   SHUICHIRO HIRAKAWA
>   INTERNET : hirakawa@da2.so-net.or.jp
>   NIFTY : GFF00711
>   TEL & FAX : +81-(0)-463-24-6483
>   HAM CALL : JA6SNK/1
>
>
>

19. (no subject)

From: "Harold Kurth" <hkurth@gte.net>
Date: Mon, 4 Nov 1996 13:47:46 -0600
To: <dsp-93@tapr.org>
Message-ID: <199611041951.NAA11435@mail1.gte.net>
Rendered body type: text/plain

Harold Kurth
UNSUBSCRIBE

20. Pre-built units

From: "Donald J. Tambeau" <tambeaud@vianet.on.ca>
Date: Mon, 04 Nov 1996 16:44:23 -0400
To: dsp-93@tapr.org
Message-ID: <327E55A6.6872@vianet.on.ca>
Rendered body type: text/plain

Because of poor eyesight I am looking for a pre-built unit. Can anyone
give me a list of vendors that sell working units of the dsp-93?
Thank you
Don

21. Re: [DSP-93:2398] Pre-built units

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Mon, 04 Nov 1996 17:34:40 -0600
To: dsp-93@tapr.org
Message-ID: <327E7D8E.D94@amsat.org>
Rendered body type: text/plain

There are currently no commercial vendors selling the DSP-93.

However, used units are listed for sale on this mail list from time to
time.

Good luck.

Donald J. Tambeau wrote:
>
> Because of poor eyesight I am looking for a pre-built unit. Can anyone
> give me a list of vendors that sell working units of the dsp-93?
> Thank you
> Don

--
Ron W5RKN

also:
rparsons@bga.com

22. Re: [DSP-93:2398] Pre-built units

From: Mills@huey.udel.edu
Date: Mon, 4 Nov 96 20:36:34 EST

To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <9611042036.aa01720@huey.udel.edu>
Rendered body type: text/plain

Don,

I have poor eyesight, too, plus only one fixed-focus, fixed-aperture
eyeball, so building a DSP93 was pretty scary. Happy to say DSP93
and eyeball are doing fine, now that the adventure is over. Seriously,
I found the kit not among the most difficult I've faced. I give you
the old Heath HW1000 silicon transceiver kit...

Dave, w3hcf

23. Re: [DSP-93:2399] Re: Pre-built units

From: Jeff King <jeff@mich.com>
Date: Tue, 05 Nov 1996 08:56:03 -0500
To: dsp-93@tapr.org
Cc: rparsons@bga.com
Message-ID: <1.5.4.32.19961105135603.00721a30@mich.com>
Rendered body type: text/plain

>Donald J. Tambeau wrote:
>>
>> Because of poor eyesight I am looking for a pre-built unit. Can anyone
>> give me a list of vendors that sell working units of the dsp-93?
>> Thank you
>> Don
>
>--
>Ron W5RKN
>
>also:
>rparsons@bga.com
>
>
>

Call your local High School. Many of them have vocational electronics
classes. A student could build it for you. Make sure you talk to the
teacher and get a "good" student. He/she (the student) might even
be able to use the experince as a class project (in which you get
the built unit at the end).

If your in a bigger hurry, there are lots of job shops in metro areas
that can do the job. You might even find a local ham that knows how
to solder good.Regards,

Jeff King
jeff@mich.com
Linked to the internet via spread spectrum

24. RE: [DSP-93:2386] Re: Message for Owners of the PacComm TNC for the TAPR/AMSAT DSP-93

From: Gwyn Reedy <gwyn@paccomm.com>
Date: Tue, 5 Nov 1996 13:02:43 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Cc: "'file'" <file@paccomm.com>
Message-ID: <01BBCB19.A4217E60@gwyn.paccomm.com>
Rendered body type: text/plain

On Sunday, November 03, 1996 2:32 AM, Julio Morais[SMTP:py4lf@bis.com.br] wrote:
>
>>My intent is to exchange units with any existing owner who has brought his=
>=20
>>TNC to the meeting. Priority will be given to overseas (actually out of the=
>=20
>>country) owners where shipping difficulties are more of a factor.
>>
>>Anyone who does not bring their unit along, or does not want to have to=20
>>return the older unit may take an upgrade kit and perform the modifications=
>=20
>>themselves.
>>
>>There is no charge for either approach.
>>
>>Be advised that this upgrade substantially solves the problems reported=20
>>with the TNC. There remain some difficulties with the PASSTHRU functions=20

>>which are reasonably believed to lie with the DSP-93 firmware and these=20
>>will have to be addressed by the DSP-93 development group.
>>
>>
>>Gwyn Reedy, W1BEL
>>PacComm Packet Radio Systems
>>http://www.paccomm.com
>>
>>
>>
>
>.....Hello Gwyn! I=B4ll appreceat to receive all necessary to do the=
> upgrade .
>73=B4s!
>**
>* PY4LF ..... AMSAT 26515 ..... TAPR 4962 ..... *
>* J=FAlio M. C. Morais // R. Beta 363 // 35160-070*
>* Ipatinga // MG // BRAZIL   *
>* Fone:55-31-8214084 // Fax:55-31-8293063   *
>**
>
>
>

The upgrade package will be mailed to you.

Gwyn Reedy, W1BEL
PacComm Packet Radio Systems
http://www.paccomm.com

```
begin 600 WINMAIL.DAT
M>)\^(B\2`0:0" `$```````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
M`@````(``@`!!) &`"0"```"````# ````,``# $`````"P`/#@``````"`?\/
M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
M4TU44#I$4U M.3- 5$%04BY/4D<``````P``.0`````+`$ Z`0````(!]@\!
M````! ````````0,`````P``, 4````+``\.`0````(!_P\!````7P``````
M``"U.\+ +'<0&J&\" `K*E;"%0```&\X(?*DJ,\1@-$`0 4IO-<D@ ``````
M`($K'Z2^HQ 9G6X`W0$/5 (`````9FEL90!33510`&9I;&5 <&%C8V]M;2YC
M;VT``!X``C !````!0```%--5% `````'@`#, $````1````9FEL94!P86-C
M;VUM+F-O;0`````#`!4,`@````,`_@\&````'@`!, $````!`````)V9I;&4G
M```"`0LP`0```!8```!33510.D9)3$5 4$%#0T]-32Y#3TT````#```Y````
M``L`0#H``````@'V#P$````$`````````!0I;`0B !P`8````25!-+DUI8W)O
M<V]F="!-86EL+DYO=&4`,0@!!( !`%8```!213H@6T134"TY,SHR,S@V72!2
M93H@365S<V%G92!F;W(@3W=N97)S(&]F('1H92!086-#;VUM(%1.0R!F;W(@
M=&AE(%1!4%(O04U3050@1%-0+3DS`+ 9`06 `P`.````S <+``4`#0`"``L`
M`@`?`0$@@ ,`#@```,P'"P`%``T``@`9``(`#0$!"8 !`"$````T0D(P-S T
M-T(P,S1$,#$Q.#!$-# P-# P-3(Y0D-$-P#=!@$#D 8`. <``!(````+`",`
M``````,`)@``````"P`I```````#`#8``````$ `.0! R=:*0\N[`1X`< `!
M````5@```%)%.B!;1%-0+3DS.C(S.#9=(%)E.B!-97-S86=E(&9O<B!/=VYE
M<G,@;V8@=&AE(%!A8T-O;6T@5$Y#(&9O<B!T:&4@5$%04B]!35-!5"!$4U M
M.3,````"`7$``0```!8````!N\M#BK5'<+!,-+ 1T(#4`$ %*;S7```>`!X,
M`0````4```!33510``````!X`'PP!````$0```&=W>6Y <&%C8V]M;2YC;VT`
M`````P`&$.27ZI@#``<03P0``!X`"! !````9O```$].4U5.1$%9+$Y/5D5-
M0D52,#,L,3DY-C(Z,S)!32Q*54Q)3TU/4D%)4U--5% Z4%DT3$9 0DE30T]-
M0E)74D]413I-64E.5$5.5$E35$]%6$-(04Y'155.25135TE42$%.644``````
M`@$)$ $```!_!0``>P4``$,.``!,6D9U"UI=D?\`"@$/`A4"J 7K`H,`4 +R
M"0(`8V@*P'-E=#(W!@`&PP*#,@/%`@!P<D)Q$>)S=&5M`H,S-P+D!Q,"@S02
MS _?9C7;$LP4R#8#QA3(-P1&$S-L,2 (50*#.!+'$74P712V?0J ",\)V3L>
M;S*$-34?CV4Q,C@"@ <*@0VQ"V!N9S$P,T\44 L*&C$+\2!/`Z!30'5N9&%Y
M+ >P;VIV$^!B!) @(O D\#& .3DV(#(Z,QA!@DTD\$IU;&EO!= #!; +<'-;
M4TU44 `Z<'DT;&9 8@4$`"X%H&TN8G)=K"!W`V 3T#H*A#X+1CL58@P!8Q*A
M$U I(6-T#PJ$(WPISRK8/DUY(%\+@!/0`C ND 0@="<`929X$7$BP&4@)*!I
M=.,$( /P=&@@`' N@"]P!00`= N 9R!O=V[Y)7%W:"<`$8 $("C "&#49V@%
M0&@$`#TK?RR//2JK/0'0,R\T/RV<5$Y^0R\R,( OX > $< Q02Y\(% %$ 6P
M," N@ /P;.,#("5@(&=I)3 #H"]!ER4A$:$R,2@`T'1U!T#.;"Z "& %0&]F
M.:(S'W\W3S4_/@\_'RV<!: DH'1X<GDI,70P03G 'G @4G,RX'!P,4)D!I!F
M_&EC)M Q, >1"L YT06P8R_@/9%A(&8\P06P+K]!+T(_+9Q(/TE/+9Q!,,"G
M`B OX#'B9&\'D6XI(/<R43%".;%I!< P`C"@'@#O(L D\ 6Q3N=W`' %0"]!
M_Q& )3 O,4#_3!]-+QYP/.#_!*$YL@;P!(%0) # +H !D*9K+^ #D75P"<!A
M#;#,(&M04B2P(' $D (0O')M.:0$< :01E!A,3#_`B S#U//0 ]2SUN?+8TY
ML?IM$;!L)3 H8%V_7L]*7[]AGV*O.)I%,R\13S @$7+?+]%9(2]@,'$E<6%%
ML -@_0#0:&%?96]C?VG_:P\MNO)"5Z%D=@0`"8 YH5H@QSFA+Q%7]G-U8A/
M4<'[!S$](7,&\&$A.:,K`0)@]6#1(!YP<!X1"8!=CVV__V[/,&,YLCE!.F!G
M9!YP`, ?"X!R<0> 1@QW=U!!4^!35$A254>P)* K4/]:0W1?=6]V?S+@$7!&
MTQYPOS(P`B !H#TA)6 FX&4E, ]P82<`@)%Z.$134"WL.3-'L% `;5&P15%8
```

```
MLO\YL1&P>_]]#WX?.Q-2-3M2W5@P9!YP!!!P46)748'8]PVP)3 >`' '@"[A
M"< (8/YP:<^$SVOOBH^+GXROC;^CCL\MYT=W>0.@4@G@@F0DX5<Q0D5,D&_;
MD7\MG% `T A0;5E0EW&[5Y %0%)8,";Q$Z1SE'\'E8\MG#*P=' Z+R_J=YR@
M+@JP8RB!** H@?^9/YI/CX^=SY[?G^^@_Z(/OZ,?I"^E/RL_IV^H?RZL<A9(
M80`>`""38B$@2?P]0B@``R!I0@60/'!1X_^N(CNA4'$#(#&@KD $$ K _U=1
M3L(]OZI/JU\%0%?GBE^3L<^RW3<SK9%S(;1O^[5_J+LJNL^[W[S,M]^X[\.Y
M_#IP631,1K1 K'(1)G%3050F(#8U,0(UP35405!2(#0_)@`1X,%$O<^^W[_N
M2CV\1D$FXSI@>"$G)""<@(\'\#I@;] !D" S-H)0!<@Q,\(@-C M,#?N,,//
MQ-^_[DD*L#$R1Z )R#%-1\@B0E)!6OQ)3+.PSI_.T<GORO^_[@I&3F$Z(+ M
M,S$M@#@R,30P.#3((MA&87C31X) ,,CQSX__T)_1K[J?V;_:S]7OUO^HK__<
M+]T_WD_?7^!OX7PC3PJ%YV=A5^><X6MA+]$[%GC1]W-P@.-.4'6T5>EO"R@;
M\O\D,9-O"J.7?YB)"J.</YU#!>F$??$@``,`$! ``````P`1$ ````! ``<P
J@'8K@$/+NP% ``@P@'8K@$/+NP$>`#T``0````4```!213H@`````,)S
`
end
```

25. Re: [DSP-93:2398] Pre-built units

From: "James R. Kauten, MD" <kauten@atl.mindspring.com>
Date: Sat, 09 Nov 1996 22:20:48 -0500
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961110032048.006fb130@pop.atl.mindspring.com>
Rendered body type: text/plain

At 03:55 PM 11/4/96 -0600, you wrote:
>Because of poor eyesight I am looking for a pre-built unit. Can anyone
>give me a list of vendors that sell working units of the dsp-93?
>Thank you
>Don
>
Don,

I have one that I built and would be willing to build one for you if you
have not yet found one.

73, Jim Kauten, MD, W4TE (ex KO4RQ)
```
=====================================================
James R. Kauten, M.D.,  KO4RQ (kauten@mindspring.com)
=====================================================
Phone:      (404) 355-9537 (Fax)            (404) 355-9515 (Daytime)
Address:  James R. Kauten, M.D.,  95 Collier Road,  Suite 2055
                                              Atlanta, GA,  30305-1955
=====================================================
```

26. DSP list reminder

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 10 Nov 1996 12:35:58 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961110123558.0072af64@camel.campbell.edu>
Rendered body type: text/plain

Hello all,

Just a quick reminder that the 56002EVM kits are arriving (well, mine hasn't
yet...) and the dicussion for this project has started on the DSP list.

If you have been putting off joing the DSP list, now is the time to do so.
You can send a message to listserv@tapr.org with a message in the body that
says "help" without the quotes if you need some help.

See you there! Now if only that EVM would get here with ALL of those
manuals....

Mark L. Hammond   [KC4EBR]

27. Re: [DSP-93:2404] DSP list reminder

From: John/Carol Wilson <carollw@fcae.acast.nova.edu>
Date: Sun, 10 Nov 1996 10:01:56 -0500
To: dsp-93@tapr.org
Message-ID: <3285EE64.3019@fcae.acast.nova.edu>
Rendered body type: text/plain

Mark L. Hammond wrote:
>
> Hello all,
>
> Just a quick reminder that the 56002EVM kits are arriving (well, mine hasn't
> yet...) and the dicussion for this project has started on the DSP list.

>
> If you have been putting off joing the DSP list, now is the time to do so.
> You can send a message to listserv@tapr.org with a message in the body that
> says "help" without the quotes if you need some help.
>
> See you there! Now if only that EVM would get here with ALL of those
> manuals....
>
> Mark L. Hammond   [KC4EBR]
What is the 56002EVM and what does it do? I see some mail about a few
things that I know nothing about. Thanks,

John, KN4HX

28. to W1BEL send me a kit

From: ISAO KOUDA <kouda@rdbgw.rd.chuden.co.jp>
Date: Mon, 11 Nov 1996 13:22:07 +0900
To: dsp-93@tapr.org
Message-ID: <199611110414.NAA03712@rdbgw.rd.chuden.co.jp>
Rendered body type: text/plain

Hello OM !

 I read your open letter to all of PacComm TNC for THE TAPR/AMSAT DSP-93

 on DSP-93 mailing list(This mailing list)

 Please send me a modification kit as desscribed above letter.

 Here is my address as follows.

 Name:

 Mr.
 ISAO KOHDA

 Address:

 9-14-15
 IWANARIDAI kASUGAI CITY
 AICHI PRE.
 JAPAN 487

 TEL&FAX 081-568-92-3400

 INTERNET kouda@rdbgw.rd.chuden.co.jp

 Please respond

 73

 KOHDA

<<<<----------------------------------->>>>
Name   : Isao Kouda
E-mail : kouda@rdbgw.rd.chuden.co.jp
<<<<<----------------------------------->>>>

<<<<----------------------------------->>>>
Name   : Isao Kouda
E-mail : kouda@rdbgw.rd.chuden.co.jp
Company: Chubu Electric Power Co.Inc.
          Electric Power R&D Center
              Power system group
Address: 20-1 Kitasekiyama Odaka-cho
          Midori-ku Nagoya 459 Japan
TEL   : ++81-52-624-9134(direct in)
          ++81-52-621-6101(ex2110)
FAX   : ++81-52-624-9207
<<<<<----------------------------------->>>>

29. RE: [DSP-93:2406] to W1BEL send me a kit

From: Gwyn Reedy <gwyn@paccomm.com>
Date: Tue, 12 Nov 1996 06:27:13 -0500
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BBD062.8B769F00@gwyn.paccomm.com>

Rendered body type: text/plain

I have received your e-mail, and an upgrade kit will be sent to you.

```
----------
From:   ISAO KOUDA[SMTP:kouda@rdbgw.rd.chuden.co.jp]
Sent:   Sunday, November 10, 1996 5:27 PM
To:     dsp-93@tapr.org
Subject:        [DSP-93:2406] to W1BEL send me a kit

 Hello OM !

 I read your open letter to all of PacComm TNC for THE TAPR/AMSAT DSP-93  on DSP-93 mailing list( This
mailing list )

 Please send me a modification kit as desscribed above letter.   Here is my address as follows.

 Name:   Mr.  ISAO KOHDA
 Address:       9-14-15  IWANARIDAI
                kASUGAI CITY
                AICHI PRE.
                JAPAN  487

 TEL&FAX 081-568-92-3400
 INTERNET kouda@rdbgw.rd.chuden.co.jp
 Please respond

 73
 KOHDA
Name   :  Isao Kouda
E-mail : kouda@rdbgw.rd.chuden.co.jp
Company:  Chubu Electric Power Co.Inc.
          Electric Power R&D Center
              Power system group
Address:  20-1 Kitasekiyama Odaka-cho
          Midori-ku Nagoya 459 Japan
TEL    :  ++81-52-624-9134(direct in)
          ++81-52-621-6101(ex2110)
FAX    :  ++81-52-624-9207
<<<<<----------------------------------->>>>
```


```
begin 600 WINMAIL.DAT
M>)\^(@X+`0:0" `$`````!``$``0>0!@`(````Y 0```````#H``$-@ 0`
M`@````(``@`!!) &``@!```!````# `````,``# #````"P`/#@`````"`?\/
M`0```#T`````````@2L?I+ZC$!F=;@#=`0]4`@````!D<W M.3- =&%P<BYO
M<F<`4TU44 !D<W M.3- =&%P<BYO<F<`````'@`", $````%````4TU44 ``
M```>``,P`0```! ```!D<W M.3- =&%P<BYO<F<``P`5# $````#`/X/!@``
M`!X``3 !````$@```"=D<W M.3- =&%P<BYO<F<G`````@$+, $````5````
M4TU44#I$4U M.3- 5$%04BY/4D<`````P``.0`````+`$ Z`0````(!]@\!
M````! ````````,1*0$(@ <`& ```$E032Y-:6-R;W-O9G0@36%I;"Y.;W1E
M`#$(`02 `0`I````4D4Z(%M$4U M.3,Z,C0P-ET@=&\@5S%"14P@<V5N9"!M
M92!A(&MI= !2"P$%@ ,`#@```,P'"P`,``8`&P`-``(`&@$!(( #``X```#,
M!PL`# `&`!H`) `"`# !`0F `0`A````1D4R-4)",3DY13,W1# Q,3@P1#0P
M,#0P,#4R.4)#1#<`$@<!`Y &`*0%```2````"P`C```````#`"8```````L`
M*0```````P`V``````! `#D``!E <XS0NP$>`' ``0```"D```!213H@6T13
M4"TY,SHR-# V72!T;R!7,4)%3"!S96YD(&UE(&$@:VET``````(!<0`!````
M%@````&[T(QS-AF[)?\WGA'0@-0`0 4IO-<``!X``'@P!````!0```%--5% `
M`````'@`?# $````1````9W=Y;D!P86-C;VUM+F-O;0`````#``80",3H7 ,`
M!Q 5`P``'@`($ $```!E````24A!5D5214-%259%1%E/55)%+4U!24PL04Y$
M04Y54$=2041%2TE45TE,3$)%4T5.5%1/64]5+2TM+2TM+2TM+4923TTZ25-!
M3TM/541!4TU44#I+3U5$04!21$)'5U)$0TA51 `````"`0D0`0```!<$```3
M!  ``J <``$Q:1G5<E8AV_P`*`0\"%0*H!>L"@P!0`O()`@!C: K <V5T,C<&
M``;#`H,R`\4"``!R0G$1XG-T96T"@S,W`N0'$P*#- 1&$S,Q(-L(50*#-1+,
M#]U]"H (S\4)V3L9WS$R. * "H&##;$+8&YG,3 S%%!'"PH580OQ($D@$8!V
M1&4@&>!C96D>P&3$('D(82!E+0# `Q"<+" `<!]@`Y%U< G 8F$-L"!K:05
M`_!L'0,@8A[0$; ","!T;QT?<BX*A2+/"KAL:3'D-#0"T6DM)0,,T"4#N0M9
M,38*H -@$]!C!4"^+2>G"H<F6PPP)R9&`V$>.BBN)R8,@AYP4T%/`"'!+3U5$
M05M3($U44#IK"&!D84) "R!B9W<N"R N#Q%P+8 )\"Y ;RYJ<'Y=*$\I709@
M`C JCRN;4Y)U(&!A>2 P3F\>P!L&T 20(!T`(# Q.3D`-B U.C(W(%!F32\O
M*5U4;S%O*YMDP'-P+3DS0 &0$U :+@6P9S5?,#YU8FJ')V$W?RN;6T134#F!
M$S3P)2 V72)"5S%"_$5,(?(?8 > ($ A,B.O-PLH%R(,`6,`02<F($B&92&@
M(F!/32 A(SQ/'G$9X"$`'W1O< GP('YL$< 3T 7 (E$'0 ,@;TYF-2 `T A0
M;6TW0$Z,0R "$ 7 5$A%-T @05!2+T$%X$%4?B ^I$.@`B!)5A_R"X!GTT90
M!  !T*#= : 0`2GO<("DC+34@1F!A$; _^8,$80:0:6-A=&E)X?\A0DW .4 '
MD 3R(= @<0;@NQ[!1F0N0Z!#L1G@($N"\GD@0&1D&> $$4^Q`A#90^%W<R*]
```

```
M![!A!X \L.U#H$U10BQE2"S@0Z!$UFY!4E14HBP3.25Q)7 U@44Q5T%.05))
M+. /'H D!RPB+!-K05-5PD=8@4-)5%E$UEDXV5B 0T@>@$C012*V62F.2DC
M6"!#H#0X-T1M`E0_T"9&05@@,$ X,2TU-C@Y@#)<+3,E(!Y@1-=.7P!2?$Y%
M24 M;RYX30Y2<7#U`B!D1&TW2;!$UE6%5=='5&)1852A27-A(F!+^V&B045%
M'^-GL6&?+GA!15-'H4%P;GE4H4,N8&+>=6CP1F G< 408S4@4S##-"$(4"Y)
M;F-<1VYW\6R]4B9$%E B$020;A_K9J)M1',3LR )P A@:S9_5G@!T"5P+* A
M4$W!(4!YBU1P0(!/:<!K82T1<&)O<+]-:60%L"5@:S-LD%1@9V]U`%W0-3E_
M76 YT !P045?`6:B5*$KMBM?DF 0-C\0.8 Q8##>*$[ 'O$%0 N *77O>:B%
M7Z V'0`Q*&5X?/#?'0![1E]">4]?\3 U$$%%WCR <B>H@5\GHSZ"P2,_7T$/
M0A\G%X15&0$`AW ``P`0$ `````#`!$0! ```$ `!S! M4==C-"[`4 `"#!
=M4==C-"[`1X`/0`!````!0```%)%.B `````^IT`
`
end
```

30. Comments on Paccomm TNC?

```
From: "John A. Morley" <endeavor@usa1.com>
Date: Sat, 16 Nov 1996 10:26:20 -0500
To: DSP-93@tapr.org
Message-ID: <2.2.32.19961116152620.0075a3fc@usa1.com>
Rendered body type: text/plain
```

Does anyone have any comments as to the effectiveness of the recent hardware/software modifications to the Paccomm TNC for the DSP-93? Specifically, does the modified unit retain non-volatile parameters, and does the PASSTHRU function work reliably at reasonable (9600, 19200) baud rates? My unit was sent directly to Paccomm, and I am still awaiting its return!

John KA1JMF

31. U210 ?

```
From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Mon, 18 Nov 1996 03:16:30 -0600
To: " DSP-93 Build "<dsp-93@tapr.org>
Message-ID: <v03007801aeb5d99ddac7@[128.83.113.84]>
Rendered body type: text/plain
```

We have had one person report a bad U210 in the last kit updates we sent out. Does anyone else have a bad U210 in the 20 sent.

Please let me know ASAP, since I am about to burn the U210 for Stacey.

Cheers - Greg

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

32. LEAVE IDRA HF<idrahf@dtsdata.intnet.bj>, dsp-93@tapr.org, Robert Aceti <bobace@inforamp.net>

```
From: Robert Aceti <bobace@inforamp.net>
Date: Tue, 19 Nov 1996 10:38:58 -0500 (EST)
To: IDRA HF<idrahf@dtsdata.intnet.bj>, dsp-93@tapr.org, listproc@tapr.org,
        "listmanager@dtsdata.intnet.bj" <listmanager@dtsdata.intnet.bj>
Message-ID: <2.2.16.19961119104558.37bf3ac6@mail.inforamp.net>
Rendered body type: text/plain
```

leave IDRA HF<idrahf@dtsdata.intnet.bj>,

unsubscribe IDRA HF<idrahf@dtsdata.intnet.bj>

leave dsp-93@tapr.org
unsubscribe dsp-93@tapr.org

33. PaCcomm TNC

```
From: davemed@ix.netcom.com
Date: Sat, 23 Nov 1996 10:43:26 -0800
To: DSP-93@tapr.org
Message-ID: <19961123113951718467@ix.netcom.com>
Rendered body type: text/plain
```

While in Tucson Gwynn Reedy was kind enough to give me a new version of the TNC in exchange for my old one. I have indtalled it and confirmed that it does indeed allow me to access the DSP-93 EPROM and run programs from it successfully. But this is not what I want to do. I need to be able to load

modems into the DSP-93 from DOS as I have been doing in the past through
WiSP.
I now find I don't understand how to do this with the new TNC. I have looked
at TNCINIT and the programs by W6LLO/ZL2AMD but none of these seem to help.
I feel I am being very dumb here somewhere but my old brain does this to me
sometimes. I really would appreciate some help with this problem.
I have resisted the temptation to slow the DSP-93 down as this would seem to
me to be couter productive and have used the two port approach up until now.
73 de Dave KI6QE/7

34. Re: [DSP-93:2411] PaCcomm TNC

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Sat, 23 Nov 1996 14:55:20 -0600
To: dsp-93@tapr.org
Message-ID: <329764B8.3F60@amsat.org>
Rendered body type: text/plain

davemed@ix.netcom.com wrote:
>
> While in Tucson Gwynn Reedy was kind enough to give me a new version of the
> TNC in exchange for my old one. I have indtalled it and confirmed that it
> does indeed allow me to access the DSP-93 EPROM and run programs from it
> successfully. But this is not what I want to do. I need to be able to load
> modems into the DSP-93 from DOS as I have been doing in the past through
> WiSP.
> I now find I don't understand how to do this with the new TNC. I have looked
> at TNCINIT and the programs by W6LLO/ZL2AMD but none of these seem to help.
> I feel I am being very dumb here somewhere but my old brain does this to me
> sometimes. I really would appreciate some help with this problem.
> I have resisted the temptation to slow the DSP-93 down as this would seem to
> me to be couter productive and have used the two port approach up until now.
> 73 de Dave KI6QE/7

TNCINIT and the revised DSPLOAD should be all you need. Just put the
commands in a .BAT file that runs just before the pass.

Perhaps I am not understanding what you don't understand.

Use TNCINIT to set parameters on the TNC and finally, set passthru on.
Then use DSPLOAD to upload the DSP-93 program.
Then use TNCINIT to get the TNC out of passthru.
Then let WiSP run.

--
Ron W5RKN

also:
rparsons@bga.com

35. Autoreply Message

From: jjprince@amoco.com
Date: Sun, 24 Nov 96 12:27:25 -0600
To: dsp-93@tapr.org
Message-ID: <199611241827.AA15572@interlock.amoco.com>
Rendered body type: text/plain

I will be out of the office from Nov. 22 through Dec 2. I
will be checking my messages through the week.

Have a good holiday.

John

36. Autoreply Message

From: jjprince@amoco.com
Date: Sun, 24 Nov 96 12:29:59 -0600
To: dsp-93@tapr.org
Message-ID: <199611241830.AA15677@interlock.amoco.com>
Rendered body type: text/plain

I will be out of the office from Nov. 22 through Dec 2. I
will be checking my messages through the week.

Have a good holiday.

John

37. Autoreply Message

From: jjprince@amoco.com
Date: Sun, 24 Nov 96 12:57:01 -0600
To: dsp-93@tapr.org
Message-ID: <199611241857.AA16244@interlock.amoco.com>
Rendered body type: text/plain

Item Subject: Auto Reply content.
I will be out of the office from Nov. 22 through Dec 2. I
will be checking my messages through the week.

Have a good holiday.

John

38. Autoreply Message

From: jjprince@amoco.com
Date: Sun, 24 Nov 96 13:03:25 -0600
To: dsp-93@tapr.org
Message-ID: <199611241903.AA16422@interlock.amoco.com>
Rendered body type: text/plain

Item Subject: Auto Reply content.
I will be out of the office from Nov. 22 through Dec 2. I
will be checking my messages through the week.

Have a good holiday.

John

39. Autoreply Message

From: jjprince@amoco.com
Date: Sun, 24 Nov 96 13:32:34 -0600
To: dsp-93@tapr.org
Message-ID: <199611241932.AA17127@interlock.amoco.com>
Rendered body type: text/plain

Item Subject: Auto Reply content.
I will be out of the office from Nov. 22 through Dec 2. I
will be checking my messages through the week.

Have a good holiday.

John

40. Autoreply Message

From: jjprince@amoco.com
Date: Sun, 24 Nov 96 13:40:18 -0600
To: dsp-93@tapr.org
Message-ID: <199611241940.AA17317@interlock.amoco.com>
Rendered body type: text/plain

Item Subject: Auto Reply content.
I will be out of the office from Nov. 22 through Dec 2. I
will be checking my messages through the week.

Have a good holiday.

John

41. Autoreply Message

From: jjprince@amoco.com
Date: Sun, 24 Nov 96 14:00:06 -0600
To: dsp-93@tapr.org
Message-ID: <199611242000.AA17812@interlock.amoco.com>
Rendered body type: text/plain

Item Subject: Auto Reply content.
I will be out of the office from Nov. 22 through Dec 2. I
will be checking my messages through the week.

Have a good holiday.

John

42. Autoreply Message

From: jjprince@amoco.com
Date: Sun, 24 Nov 96 14:10:31 -0600
To: dsp-93@tapr.org
Message-ID: <199611242010.AA18047@interlock.amoco.com>
Rendered body type: text/plain

Item Subject: Auto Reply content.
I will be out of the office from Nov. 22 through Dec 2. I
will be checking my messages through the week.

Have a good holiday.

John

43. Autoreply Message

From: jjprince@amoco.com
Date: Sun, 24 Nov 96 14:27:31 -0600
To: dsp-93@tapr.org
Message-ID: <199611242027.AA18390@interlock.amoco.com>
Rendered body type: text/plain

Item Subject: Auto Reply content.
I will be out of the office from Nov. 22 through Dec 2. I
will be checking my messages through the week.

Have a good holiday.

John

44. Autoreply Message

From: jjprince@amoco.com
Date: Sun, 24 Nov 96 14:51:15 -0600
To: dsp-93@tapr.org
Message-ID: <199611242051.AA19050@interlock.amoco.com>
Rendered body type: text/plain

Item Subject: Auto Reply content.
I will be out of the office from Nov. 22 through Dec 2. I
will be checking my messages through the week.

Have a good holiday.

John

45. Re: [DSP-93:2422] Autoreply Message

From: Ray Heasman <ray@rucus.ru.ac.za>
Date: Sun, 24 Nov 1996 23:04:06 +0200 (SAT)
To: dsp-93@tapr.org
Message-ID: <199611242104.XAA27988@rucus.ru.ac.za>
Rendered body type: text/plain

>
> Item Subject: Auto Reply content.
> I will be out of the office from Nov. 22 through Dec 2. I
> will be checking my messages through the week.
>
> Have a good holiday.
>
> John
>
>
Hi All,

I forwarded a copy to his postmaster and asked him to please do something
about it, so please don't do the same! We don't want to bug the postmaster,
only inform him.

Thanks,
Ray
(ZR6RAY@ZS6FB.TVL.ZAF.AF)

46. dsp93 Memtest.obj

From: py4lf@bis.com.br (Julio Morais)
Date: Sun, 24 Nov 1996 21:39:31 -0200
To: dsp-93@tapr.org
Message-ID: <9611242345.AA13123@brasilnet.com.br>
Rendered body type: text/plain

```
Dear fellows: during memtest I got results following:
*G1234567
1234567
1234567
1234567
1234567
1234567
1234567
1234567
123E:4

        What must I to do for the error? At second test, more continuos
correctlines until another error 12E:3.
        Tnx for suggestion!
************************************************
* PY4LF ..... AMSAT 26515 ..... TAPR 4962 ..... *
* Júlio M. C. Morais // R. Beta 363 // 35160-070*
* Ipatinga // MG // BRAZIL                      *
* Fone:55-31-8214084 // Fax:55-31-8293063       *
************************************************
```

47. Re: [DSP-93:2424] dsp93 Memtest.obj

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Sun, 24 Nov 1996 18:36:46 -0600
To: dsp-93@tapr.org
Message-ID: <3298EA1D.554D@amsat.org>
Rendered body type: text/plain

```
Julio Morais wrote:
>
>         Dear fellows: during memtest I got results following:
> *G1234567
> 1234567
> 1234567
> 1234567
> 1234567
> 1234567
> 1234567
> 1234567
> 123E:4
>
>         What must I to do for the error? At second test, more continuos
> correctlines until another error 12E:3.
>         Tnx for suggestion!
> ************************************************
> * PY4LF ..... AMSAT 26515 ..... TAPR 4962 ..... *
> * Júlio M. C. Morais // R. Beta 363 // 35160-070*
> * Ipatinga // MG // BRAZIL                      *
> * Fone:55-31-8214084 // Fax:55-31-8293063       *
> ************************************************

You will need to swap the memory chip with a known good one, one by one.
The error code "E:n" tells the type of error, not its location.

If the test passes 1-4, assume DATA RAM OK. So swap a DATA RAM with a
PROGRAM RAM chip. Vice versa for passing 5-7.

Test external DATA RAM
E:1             verify all zeros failed
E:2             verify all ones failed
E:3             Value = Address top to bottom failed
E:4             Value = Address bottom to top failed
Test external PROGRAM RAM
E:5             verify all zeros failed
E:6             verify all ones failed
E:7             Value = Address failed

--
Ron W5RKN

also:
rparsons@bga.com
```

48. Re: [DSP-93:2423] Re: Autoreply Message...please get me off this list

From: Robert Aceti <bobace@inforamp.net>
Date: Sun, 24 Nov 1996 20:41:50 -0500
To: Ray Heasman <ray@rucus.ru.ac.za>, dsp-93@tapr.org
Message-ID: <3.0.32.19961124204148.006b5d8c@inforamp.net>

Rendered body type: text/plain

Ray

I tried in vain to unsubscribe using the protocal mailed when I signed-on.

If your know John well please ask him to get me off this list as his
unsubscribe protocal doesn't work for me.

thanks.

Bob

At 03:06 PM 11/24/96 -0600, you wrote:
>>
>> Item Subject: Auto Reply content.
>> I will be out of the office from Nov. 22 through Dec 2. I
>> will be checking my messages through the week.
>>
>> Have a good holiday.
>>
>> John
>>
>>
>Hi All,
>
>I forwarded a copy to his postmaster and asked him to please do something
>about it, so please don't do the same! We don't want to bug the postmaster,
>only inform him.
>
>Thanks,
>Ray
>(ZR6RAY@ZS6FB.TVL.ZAF.AF)
>
>
>

49. For Sale

From: "Kenneth R. Goodwin, Jr." <kgoodwin@draper.com>
Date: Mon, 25 Nov 1996 07:19:32 -0600
To: dsp-93@tapr.org
Message-ID: <2.2.32.19961125131932.006b40c4@minnie.jsc.draper.com>
Rendered body type: text/plain

DSP 93 Kit from latest batch (9/96). TAPR box just opened, hardly touched. $400
TI 320C5x DSP Stater Kit. Never used. $50
State Machine DCD Kit. $10

All postpaid. Ken Goodwin, K5RG Houston, Texas

50. [DSP-93:2427] For Sale

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Mon, 25 Nov 1996 11:56:10 -0600
To: " DSP-93 Build "<dsp-93@tapr.org>
Message-ID: <v03007801aebf8e0cbcd2@[128.83.113.117]>
Rendered body type: text/plain

FYI - Greg

>Date: Mon, 25 Nov 1996 07:19:45 -0600 (CST)
>Reply-To: dsp-93@tapr.org
>Originator: dsp-93@tapr.org
>Sender: dsp-93@tapr.org
>Precedence: bulk
>From: "Kenneth R. Goodwin, Jr." <kgoodwin@draper.com>
>To: dsp-93@tapr.org
>Subject: [DSP-93:2427] For Sale
>X-Comment: Tucson Amateur Packet Radio DSP-93 Kit SIG
>
>DSP 93 Kit from latest batch (9/96). TAPR box just opened, hardly touched.
>$400
>TI 320C5x DSP Stater Kit. Never used. $50
>State Machine DCD Kit. $10
>
>All postpaid. Ken Goodwin, K5RG Houston, Texas
>

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

51. Re: [DSP-93:2425] Re: dsp93 Memtest.obj

From: py4lf@bis.com.br (Julio Morais)
Date: Mon, 25 Nov 1996 22:11:58 -0200
To: dsp-93@tapr.org
Message-ID: <9611260017.AA12478@brasilnet.com.br>
Rendered body type: text/plain

>
>You will need to swap the memory chip with a known good one, one by one.
>The error code "E:n" tells the type of error, not its location.
>
>If the test passes 1-4, assume DATA RAM OK. So swap a DATA RAM with a
>PROGRAM RAM chip. Vice versa for passing 5-7.
>
>Test external DATA RAM
>E:1   verify all zeros failed
>E:2   verify all ones failed
>E:3   Value = Address top to bottom failed
>E:4   Value = Address bottom to top failed
>Test external PROGRAM RAM
>E:5   verify all zeros failed
>E:6   verify all ones failed
>E:7   Value = Address failed
>
>--
>Ron W5RKN
>
>also:
>rparsons@bga.com

        OK Ron, tnx for help! I´ll do your sugestion!
        73´s for now!
****
* PY4LF ..... AMSAT 26515 ..... TAPR 4962 ..... *
* Júlio M. C. Morais // R. Beta 363 // 35160-070*
* Ipatinga // MG // BRAZIL   *
* Fone:55-31-8214084 // Fax:55-31-8293063   *
****

52. Re: [dsp2232] The end of AEA

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Thu, 28 Nov 1996 12:12:44 -0600
To: dsp2232@rmi.de
Cc: dsp-93 <dsp-93@tapr.org>
Message-ID: <329DD61C.51AB@amsat.org>
Rendered body type: text/plain

Robert W. McGwier wrote:
>
...
> With the ambulance
> chaser's approval, I will post the annotated source code for all modems
> to the TAPR internet servers. Pat has said that he will post the tune
> up procedure for the analog front end. I would be happy to help anyone
> who wants to work on them with those areas I already know could use
> improvement: clock recovery needed to change from DPLL to optimal
> sampling,
> etc.   I have a laundry list of things that can be done as well as your
> getting KA2MOV's tune up procedure for the front end. With the demise
> of AEA, you might never be happier.
>
> Bob

Bob, that would be great. The TAPR DSP-93 group and the new interest in
the Motorola evaluation module on dsp@tapr.org should provide a number
of us that would like to take a look at the beast.

Hope you are able to do this.

--
Ron W5RKN

also:
rparsons@bga.com

53. Amateur Radio use of Analog Devices DSP?

From: "In space, no one can hear you snore" <DSCHULTZ@sssp.gsfc.nasa.gov>
Date: Thu, 28 Nov 1996 20:39:36 GMT
To: dsp-93@tapr.org
Cc: DSCHULTZ@sssp.gsfc.nasa.gov
Message-ID: <961128203936.6292@sssp.gsfc.nasa.gov>
Rendered body type: text/plain

Ron, W5RKN, replied to Bob McGwier:

>Bob, that would be great. The TAPR DSP-93 group and the new interest in
>the Motorola evaluation module on dsp@tapr.org should provide a number
>of us that would like to take a look at the beast.

There has been a lot of interest in the DSP-93, the AEA box, and the
Motorola evaulation module, but there has been little or no discussion
about anyone using the Analog Devices DSP chips for amateur radio use.
Is anyone out there in DSP-land doing anything interesting with these
chips? The RUDAK experiment on Phase 3D carries some of these chips and
I for one would like to see what sort of neat satellite experiments we
could be doing with them. The normal price of the Analog Devices EZ-kit
is about the same as the discounted price for the Motorola kit, only
reason I haven't ordered one yet is because I don't want the UPS man
trying to deliver it while I am out of town, but I will probably get one
in the next week or so.

Dan Schultz N8FGV

54. Re: [DSP-93:2431] Amateur Radio use of Analog Devices DSP?

From: "Steven R. Bible" <srbible@gnatnet.net>
Date: Thu, 28 Nov 1996 19:59:33 -0500
To: dsp-93@tapr.org, dsp@tapr.org
Message-ID: <1.5.4.32.19961129005933.006a8424@gnatnet.net>
Rendered body type: text/plain

At 02:40 PM 11/28/96 -0600, you wrote:
>Ron, W5RKN, replied to Bob McGwier:
>
>>Bob, that would be great. The TAPR DSP-93 group and the new interest in
>>the Motorola evaluation module on dsp@tapr.org should provide a number
>>of us that would like to take a look at the beast.
>
>There has been a lot of interest in the DSP-93, the AEA box, and the
>Motorola evaulation module, but there has been little or no discussion
>about anyone using the Analog Devices DSP chips for amateur radio use.
>Is anyone out there in DSP-land doing anything interesting with these
>chips? The RUDAK experiment on Phase 3D carries some of these chips and
>I for one would like to see what sort of neat satellite experiments we
>could be doing with them. The normal price of the Analog Devices EZ-kit
>is about the same as the discounted price for the Motorola kit, only
>reason I haven't ordered one yet is because I don't want the UPS man
>trying to deliver it while I am out of town, but I will probably get one
>in the next week or so.
>
>Dan Schultz N8FGV

Dan, this is info Pete Hardie (ve5va.qrp@usask.ca) sent me back in April on
the Analog Devices EZ-KIT. Pete sent this to me so I could make a DSP web
page. Hopefully, one of these days, I'll make that web page!

- Steve N7HPR

- - - - - - - - - - -

Date: Sun, 28 Apr 1996 16:02:02 -0600 (CST)
From: Pete Hardie <hardie@duke.usask.ca>
To: "Steven R. Bible" <srbible@gnatnet.net>
cc: Peter Hardie <hardie@duke.usask.ca>
Subject: Re: [HFSIG:1044] DSP Files on ftp.tapr.org

> If you could give me a run down on the KIT (contents, web page, price,
> programs, etc) it would be a big help to me in getting the information on
> the DSP pages.

Here's some general info from the hardware description, plus some of my
own observations [in square brackets].

Price: 89US plus shipping, taxes etc. [in Canada, mine cost $140CAN total].

HARDWARE:
- Board is 3.5" x 5.5"
- ADSP-2181 processor (33Mhz) with a total of 80kB of onboard memory
  organized as 16kx24 bits program memory and 16kx16 bits of data memory.
- AD1847 16-bit stereo codec. 4 data formats: 16 bit signed, 8 bit unsigned,
  8-bit u-law and 8-bit A-law. With the two crystals on-board, 14 different
  sampling rates are available from 5.5125kHz up to 48kHz.
- 1Mbit socketed EPROM containing the monitor code. The socket will also
  handle a 512kbit EPROM without modifying the board.
- power requirement is 8 to 10VDC at 300mA and the kit comes with an AC
  adapter [which I have found can be set at 7.5V to provide sufficient
  current and voltage to drive the board. This keeps the on-board
  5V regulator cool - otherwise it might be wise to heat-sink the regulator].
  The connector is a 5.5mm plug with a 2.1mm centre pin which is the NEGATIVE
  side of the supply. [there's an onboard diode to protect against
  reverse polarity].
- analog input is a 1/8" stereo plug which is jumper selectable for either
  2V RMS AC coupled line level input or 20mV RMS AC coupled microphone input.
- analog output is a 1/8" stereo plug generating 1V RMS AC coupled line
  level output
- DB9 connector for RS-232 communication with a host computer. [the plug
  IMHO should have been a right angle one, but this is "straight up" on
  the board].
- there are two push buttons for a hard reset and a software interrupt.
- there are sites (plated through holes) for two 50 pin connectors to
  access most of the signals on the ADSP-2181.
- also has a site for selecting different sizes of EPROM. The default is
  512k or 1M bit EPROMS.

SOFTWARE:

- the software distributed with the kit is on two 1.44Mb 3.5" floppies
  (although the second floppy has very little on it). The installation
  software *requires* Windows and the monitor program which uploads programs
  to the kit also requires Windows. However, the assembler, linker,
  simulator and EPROM splitter (all part of the kit) will run on DOS - in
  fact the manual's description of their use only shows how to run them
  from the DOS prompt.
  There are a couple of uploaders for use with DOS on Analog's WWW site in a
  file called ezkforum.zip. There's also one for the Mac. I've written one
  for the Amiga but haven't distributed it yet (contact me: ve5va.qrp@usask.ca).
- the software also contains some demo programs, with source code, which
  can be uploaded to the kit. They include FIR filtering, DTMF encoding,
  echo cancelling, ADPCM , and 2.4k and 7.8k LPC encoding demos.

DOCUMENTATION:

- EZ-KIT Lite Reference Manual.
- APPS notes for the ADSP-2181, ADSP 2100 family and the ADSP AD1847 CODEC.

If you are not familiar with the 2100 series then this isn't sufficient
documentation. At a minimum, you would also need the ADSP 2100 Family User's
Manual (on their web site in .pdf format). The kit contains an order card
for various manuals (User's Manual is $24US).

  Analog's WWW site is http://www.analog.com
  It contains some software (not as much as TI's site), code from the
  manuals, and some of the manuals and APP notes in Adobe's Acrobat .pdf format.

Let me know if there's any more detail I can add for you.

Pete Hardie
ve5va.qrp@usask.ca

- - - - - - - - - - - - - - - - -

 - Steve, N7HPR
 (n7hpr@tapr.org)

55. Re: [DSP-93:2431] Amateur Radio use of Analog Devices DSP?

From: Robert McGwier <rwmcgwier@worldnet.att.net>
Date: Thu, 28 Nov 1996 22:25:54 -0500
To: dsp-93@tapr.org
Message-ID: <329E57C2.7656@worldnet.att.net>
Rendered body type: text/plain

In space, no one can hear you snore wrote:
>
> Ron, W5RKN, replied to Bob McGwier:
> Motorola evaulation module, but there has been little or no discussion
> about anyone using the Analog Devices DSP chips for amateur radio use.
> Is anyone out there in DSP-land doing anything interesting with these
> chips? The RUDAK experiment on Phase 3D carries some of these chips and
>
> Dan Schultz N8FGV

Dan:

The DSP-232, by AEA, uses the ADSP21XX family.

I do not suggest that you buy one now ;-(.
Bob
--
****
* Robert W. McGwier, Ph.D. * Mathematician. Hobbies: Computers,
Astronomy*
* 64 Brooktree Rd.   * Amateur Radio. Scouts: Council Commissioner
*
* East Windsor, NJ 08520   * Post 995 Advisor, Troop 5700 Advancement,
*
* (H) 609-443-8963   * Sanhican #2 (Brotherhood), Used to be a
*
* (F) 609-924-3061   * Buffalo (NE-III-120). George Washington
*
* (W) 609-279-6240   * Council. Brownie Troop 193
*
****

December 1996

Original source file: dsp.9612
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9612

1. [DSP:5] GCC56K

From: forrerj@peak.org (Johan Forrer)
Date: Sun, 27 Oct 1996 23:39:42 -0600 (CST)
To: dsp@tapr.org
Message-ID: <199610280533.VAA17346@PEAK.ORG>
Rendered body type: text/plain

Hi folks,

Does anyone have some experience at building crosscompiler versions for GCC?
I have located the machine-specific files for the 56000 to build a GCC56K.
I do need to build the "include.h" file for which I have no idea of how to do
that. I have downloaded the FAQ from cygnus, but that does'nt help me either.

I realize that writing C-code for the 56002 is not a good idea, but if we can
get GCC56K working, I am sure that would be a gentle introduction into getting
folks working with the hardware.

I will appreciate e-mail me if you can help.

Thanks in advance,

--Johan Forrer, KC7WW

(e-mail: forrerj@peak.org)

2. [DSP:6] Re: GCC56K

From: Charles Brain <chbrain@dircon.co.uk>
Date: Mon, 28 Oct 1996 01:10:30 -0600 (CST)
To: dsp@tapr.org
Message-ID: <1.5.4.32.19961028070348.00678f7c@popmail.dircon.co.uk>
Rendered body type: text/plain

>I realize that writing C-code for the 56002 is not a good idea, but if we can
>get GCC56K working, I am sure that would be a gentle introduction into getting
>folks working with the hardware.

TI suggests that you write your DSP in assembler but make it callable from
C so it is easier to add to in the future.

Charles G4GUO

3. [DSP:12] Re: DSP56002EVM has arrived!

From: Tim Baggett <tim@dsp.sps.mot.com>
Date: Fri, 8 Nov 1996 09:38:57 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.SUN.3.91.961108093750.4924E-100000@aa5df>
Rendered body type: text/plain

On Thu, 7 Nov 1996 n4cnw@ibm.net wrote:

>
> Haven't seen any comments about anyone else receiving their
> EVM's yet... but mine showed up yesterday.

They should be showing up now I belive. Most of them have been shipped,
with a few still outstanding (some EVMs are backordered at the factory,
I pretty much got every EVM that wasn't ear-tagged shipped out to TAPR)

> Seems to be working great, although it can totally obliterate
> reception on any nearby radio! ;-) A case will be a necessity!

This is interesting. I guess I never tried running my EVM outside of a
lab environment. Still, a metal box wouldn't be a bad idea.

73
Tim, AA5DF

4. [DSP:13] Re: DSP56002EVM has arrived!

From: Tim Baggett <tim@dsp.sps.mot.com>
Date: Fri, 8 Nov 1996 09:48:15 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.SUN.3.91.961108094139.4924F-100000@aa5df>
Rendered body type: text/plain

On Fri, 8 Nov 1996, Donald Jacob wrote:

> Are there any plans for a group project are we going each do our thing?

I think it wouldn't be a bad idea to dig into the collection of EVM
software available on the TAPR web site. Johan, Pawell, Danie, and
others have written several application programs for the 56002. I
haven't built the interface and run any of the modems myself, but the
spectrum analyzer and a few other filter programs I have got to work.

BTW, for those who wish to build the interface cable and run the
spectrum analyzer program included on the EVM disk (spec2.zip) you will
need a computer with a bi-directional enhanced parallel port. One of the
largest group of problems EVM users have is getting this program to
work, and usually they don't have a bi-directional parallel port.

73
Tim, AA5DF

5. [DSP:14] Re: DSP56002EVM has arrived!

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Fri, 8 Nov 1996 10:19:07 -0600 (CST)
To: dsp@tapr.org
Message-ID: <v03007803aea90bf47ec6@[208.134.134.42]>
Rendered body type: text/plain

Everyone might want to check:
http://www.tapr.org/dsp/evm56k/index.html

At the bottom is some information about a box and interface board that has
been developed by Jabi Aguirre, EA2ARU

Jabi has just recently contacted TAPR about possibly doing something with
these and Steve Bible will be discussing the issue further with him. If
the cost of shipping from his part of the world to the US is not just out
of sight, I think there might be something done.

Nothing for sure here -- but something to keep in mind.

Cheers - Greg, WD5IVD

>On Thu, 7 Nov 1996 n4cnw@ibm.net wrote:
>
>>
>> Haven't seen any comments about anyone else receiving their
>> EVM's yet... but mine showed up yesterday.
>
>They should be showing up now I belive. Most of them have been shipped,
>with a few still outstanding (some EVMs are backordered at the factory,
>I pretty much got every EVM that wasn't ear-tagged shipped out to TAPR)
>
>
>> Seems to be working great, although it can totally obliterate
>> reception on any nearby radio! ;-) A case will be a necessity!
>
>
>This is interesting. I guess I never tried running my EVM outside of a
>lab environment. Still, a metal box wouldn't be a bad idea.
>
>73
>Tim, AA5DF

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

6. [DSP:15] Re: DSP56002EVM has arrived!

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 8 Nov 1996 10:47:45 -0600 (CST)
To: dsp@tapr.org
Message-ID: <199611081641.IAA08747@PEAK.ORG>
Rendered body type: text/plain

Hi,

Yes - mine arrived as well.

A few notes:

1) The units that I received were 40 MHz parts - the unit on display at the DCC were
   a 66 MHz part. If you just absolutely have to have a 66 MHz unit, better talk
   to the folks at TAPR before you open the sealed antistatic envelope!
   The difference is whether you could work with a 20 MIPS DSP vs. a 33 MIPS DSP.
   All the applications that we have to date runs on the DSP4, 56001, which has a
   27 MHz part, so even the 40 MHz part is much faster than that and you will be
   just fine. If however, you are into experiments where you are planning to
   exceed the specs of the DSP, i.e., run it at 80 MHz (40 MIPS), then you will
   need the 66 MHz EVM. Personally, for what I intend using the EVM for, the 40 MHz
   as shipped will be adequate.

2) I guess it would be a good idea that we as a group share our experiences.
   That includes hardware and software development. The unit comes with some
   materials that you must become familar with first, otherwise things are not
   going to make much sense further down the road. So get stuck into that
   what comes with the kit first; read the debugger manual from cover to cover,
   and play with that a little so get the feel for it. Also be sure to start
   reading those thick red manuals, at least thumb through the hardware aspects,
   and then look more closely at the machine instructions.

3) When you are off the ground, we will do some hand-holding and an introduction
   to the Finnish "Alef Null" code, in particular the "Leonid" real-time
   kernel. It may sound more complicated than it really is. This open the door
   to the base code that presently exist for the EVM, i.e., several radio modems,
   audio processing code, real-time FFT's etc.

4) I have been working on a dual-port radio and memory expansion interface that
   plugs into the EVM's headers. This is part of a future article and may help
   some folks that are interested in this kind of thing.

   If however, you are interested in pure simplicity, I would recommend looking
   what Danie, ZS6AWK has done for a radio interface.

5) Be sure to read the Steve Bible's DSP web page on the TAPR webserver for
   other resources.

6) Depending on interest, we can get folks started using the Motorola C compiler
   for the EVM. C is'nt the best way to do things in DSP, but often makes
   some sense to code non-critical code in C, and keep your timing-critical
   code in assembly. Personally have not used this particular C tools, but
   I am sure that we can look into that possibility.

I will check into this group from time to time and will follow any developments with interest.

Hope this is of interest - 73

--Johan, KC7WW

>>
>>Haven't seen any comments about anyone else receiving their
>>EVM's yet... but mine showed up yesterday.
>>
>>Seems to be working great, although it can totally obliterate
>>reception on any nearby radio! ;-) A case will be a necessity!
>>

I have two units that I put in the little steel-cased Radio Shack boxes.
Mine are very quiet, except for some hash from the RS232 cables.

J.

>>73
>>Mike N4CNW
>
>Received mine today. Haven't had chance to power it up yet, still reading
>the info. Should be able to play with it this weekend.
>
>Are there any plans for a group project are we going each do our thing?
>
>73
>Don Jacob   WB5EKU @ wb6wfh.#socal.ca.usa.na
>djacob@leonardo.net   (818) 892-1823
>
>
>

7. [DSP:16] I'm confused

From: W4OQM@aol.com
Date: Sat, 9 Nov 1996 21:50:17 -0600 (CST)
To: dsp@tapr.org
Message-ID: <961109224817_224621535@emout11.mail.aol.com>
Rendered body type: text/plain

[DSP:15] has me confused. It talks about 40 and 66 MHz., but the schematic
for my DSP56000 EVM distinctly shows Y1 as 4.00 Mhz. Further, 2MCLK (U3C-8)
feeds Y1's clock signal to the 'HC705. I don't have an 'HC705 data book here
at home, but I don't remember it running at anywhere near 40 MHz. So, I drag
out my trusty o-scope; and, sure enough, the 56002 clock is 4.00 Mhz.

So what's this talk about 40 and 66 MHz. units? If I replace the 4.00 MHz.
xtal with a 40 or 66 Mhz. xtal I'm sure the 'HC705 will gasp and die. What's
going on?

Charlie
W4OQM

8. [DSP:17] Re: I'm confused

From: forrerj@peak.org (Johan Forrer)
Date: Sat, 9 Nov 1996 23:00:09 -0600 (CST)
To: dsp@tapr.org
Message-ID: <199611100453.UAA23353@PEAK.ORG>
Rendered body type: text/plain

Charlie,

The DSP has an internal programmable clock multiplier that takes that 4 MHz
clock and
multiplies it to the desired rate. For the 56002 DSP chips, the DSP executes
one instruction per two of these multiplied clock ticks. Thus if the
multiplication factor is 10, you end up with a 40 MHz internal DSP clock,
which yields 20 million instructions per second (20 MIPS). Now you have to
look at the part specs; the -40 parts can theoretically go up to 40 MHz
clock speed, while the -66 Mhz parts can be clocked to 66 MHz. These
correspond to a 20 MIPS or 33 MIPS DSPs. There are several reasons why they
made the clock speed programmable, but if you need a 33 MIPS DSP for a
special application, the -40 part won't do.

You are right that on the EVM, the 4.00 MHz xtal doubles up as a clock
source for the HC705 OnCe controller as well. Saves a couple of components.

>[DSP:15] has me confused. It talks about 40 and 66 MHz., but the schematic
>for my DSP56000 EVM distinctly shows Y1 as 4.00 Mhz. Further, 2MCLK (U3C-8)
>feeds Y1's clock signal to the 'HC705. I don't have an 'HC705 data book here
>at home, but I don't remember it running at anywhere near 40 MHz. So, I drag
>out my trusty o-scope; and, sure enough, the 56002 clock is 4.00 Mhz.
>
>So what's this talk about 40 and 66 MHz. units? If I replace the 4.00 MHz.
>xtal with a 40 or 66 Mhz. xtal I'm sure the 'HC705 will gasp and die. What's
>going on?
>
>Charlie
>W4OQM
>

>

Hope this helps,

--Johan

9. [DSP:18] Re: I'm confused

From: Tim Baggett <tim@dsp.sps.mot.com>
Date: Sat, 9 Nov 1996 23:52:55 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.SUN.3.91.961109232403.10433B-100000@aa5df>
Rendered body type: text/plain

On Sat, 9 Nov 1996 W4OQM@aol.com wrote:

> So what's this talk about 40 and 66 MHz. units? If I replace the 4.00 MHz.
> xtal with a 40 or 66 Mhz. xtal I'm sure the 'HC705 will gasp and die. What's
> going on?
>
> Charlie
> W4OQM

Hi Charlie,

Good question!

Johan pretty much answered the question right on. I thought I'd point you to section 9 of the thicker red manual (the Family Manual). The demo software included with the EVM will set the PLL for a X10 multiply factor. I believe the assembly code line to look for is:

```
        movep   #$29000a,x:PCTL ;Set PLL to 40 MHz
```

These DSPs are rated at the specified frequencies, I.E., 40 or 66 MHz, depending on the part number designater FC40 or FC66. However, I have seen these EVMs often run much faster than the rated frequencies. I have run my EVM with a 66 MHz DSP on it up to 104 MHz and it still performed the operation fine. When you do run it at higher than rated speeds, it just means that you are now out of the spec range and things aren't guaranteed. I imagine there is the possibility of certain sections of the DSP having timing issue, but I don't know if there are. These DSP operating frequencies are spec'ed at temperatures up to 105 C I believe, so unless you are trying to operate your EVM in a pot of boiling water you may be able to change the MF bits in the PLL control register and run a little faster.

While I'm on here typing and mentioning something about the manuals, I should also give my 56002 Manual set introduction speech. The two red books that come with the EVM confused me at first when it came to finding something in them. The thicker manual is the 56000 Family Manual. The Family Manual contains information that is common across the entire 56000 family. This includes the address generation unit, ALU, PLL, Opcodes, etc. The slightly thinner manual is the 56002 User's Manual. It contains information that is specific to the 56002, primarily the peripherals such as the host port, serial communications interface, timer, etc. There are other DSP chips in the same 56000 Family that use the same Family Manual, but have their own User's Manual because they have different operating modes, RAM configurations, peripherals, etc. (These are primarily audio parts for surround sound decoding, MPEG audio, and other stuff - they are the 56004, 56007, 56011)

I thought I should throw that out since it did confuse me as a beginner with the EVM, and I've seen a lot of people asking questions who were also confused (not on this list).

73
Tim, AA5DF

10. [DSP:19] New to Sig

From: KG5QD@aol.com
Date: Sun, 10 Nov 1996 07:30:06 -0600 (CST)
To: dsp@tapr.org
Message-ID: <961110082329_1081911954@emout09.mail.aol.com>
Rendered body type: text/plain

Hi all- Dale here - I assume this sig just started - i.e. message number 15-
I also take it that the evm modules have been shipped - I haven't received
mine.
Have I been missed or is it taking some time because of the shorter hours at
Tapr? Tnx

11. [DSP:20] Re: New to Sig

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Sun, 10 Nov 1996 08:46:43 -0600 (CST)
To: dsp@tapr.org
Message-ID: <v03007802aeab99d6fea9@[208.134.134.42]>
Rendered body type: text/plain

Motorola was only able to provide the first 114 units of 200 that were
ordered. The other 76 units have basically been put on backorder. Thus,
it is been reported to TAPR from Motorola that the additional units will be
shipped to TAPR mid/late December. I believe Dorothy has shipped to
everyone that was in the first 114 of the orders.

As soon as we have a firm delivery date from Motorola on the remaining 76
units, I'll be sure to post here.

Not great news, but units are coming as fast as TAPR can get them from
Motorola.

For those who are going to ask, "Does this mean we get additional units to
sale ?" The answer is nope. 200 was the order placed and doesn't look
like another group purchase will be possible at this time.

Cheers - Greg

At 7:30 AM -0600 11/10/96, KG5QD@aol.com wrote:
>Hi all- Dale here - I assume this sig just started - i.e. message number 15-
>I also take it that the evm modules have been shipped - I haven't received
>mine.
>Have I been missed or is it taking some time because of the shorter hours at
>Tapr? Tnx

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

12. [DSP:24] Re: DSP56002EVM has arrived!

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Sun, 10 Nov 1996 16:42:01 -0600 (CST)
To: dsp@tapr.org
Message-ID: <v03007806aeac09643b5c@[208.134.134.42]>
Rendered body type: text/plain

Everyone might want to check:
http://www.tapr.org/dsp/evm56k/index.html

At the bottom is some information about a box and interface board that has
been developed by Jabi Aguirre, EA2ARU

Jabi has just recently contacted TAPR about possibly doing something with
these and Steve Bible will be discussing the issue further with him. If
the cost of shipping from his part of the world to the US is not just out
of sight, I think there might be something done.

Nothing for sure here -- but something to keep in mind.

Cheers - Greg, WD5IVD

>>On Thu, 7 Nov 1996 n4cnw@ibm.net wrote:
>>
>>>
>>> Haven't seen any comments about anyone else receiving their
>>> EVM's yet.... but mine showed up yesterday.
>>
>>They should be showing up now I belive. Most of them have been shipped,
>>with a few still outstanding (some EVMs are backordered at the factory,
>>I pretty much got every EVM that wasn't ear-tagged shipped out to TAPR)
>>

>>
>>> Seems to be working great, although it can totally obliterate
>>> reception on any nearby radio! ;-) A case will be a necessity!
>>
>>
>>This is interesting. I guess I never tried running my EVM outside of a
>>lab environment. Still, a metal box wouldn't be a bad idea.
>>
>>73
>>Tim, AA5DF
>

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
---

13. [DSP:25] Re: New to Sig

From: SnoozeCat@aol.com
Date: Sun, 10 Nov 1996 22:05:56 -0600 (CST)
To: dsp@tapr.org
Message-ID: <961110225929_1283244828@emout19.mail.aol.com>
Rendered body type: text/plain

Hi all:

wd5ivd@tapr.org (Greg Jones, WD5IVD) wrote:

>Motorola was only able to provide the first 114 units of 200 that were
>ordered. The other 76 units have basically been put on backorder. Thus,
>it is been reported to TAPR from Motorola that the additional units will be
>shipped to TAPR mid/late December. I believe Dorothy has shipped to
>everyone that was in the first 114 of the orders.

How do I know if I was among the lucky first 114 orders or if I am in the
depressing "other 76" and am basically waiting for Santa?

Thanks,

Jerry Reed KD4DMF
SnoozeCat@aol.com

14. [DSP:26] Re: New to Sig

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Sun, 10 Nov 1996 23:05:03 -0600 (CST)
To: dsp@tapr.org
Message-ID: <v03007816aeac641791e1@[208.134.134.42]>
Rendered body type: text/plain

We are planning on sending e-mail this weekend for those that we have
e-mail for and a letter to everyone else.

You can e-mail tapr@tapr.org and ask.

Cheers - Greg

>Hi all:
>
>wd5ivd@tapr.org (Greg Jones, WD5IVD) wrote:
>
>>Motorola was only able to provide the first 114 units of 200 that were
>>ordered. The other 76 units have basically been put on backorder. Thus,
>>it is been reported to TAPR from Motorola that the additional units will be
>>shipped to TAPR mid/late December. I believe Dorothy has shipped to
>>everyone that was in the first 114 of the orders.
>
>How do I know if I was among the lucky first 114 orders or if I am in the
>depressing "other 76" and am basically waiting for Santa?
>
>Thanks,
>
>Jerry Reed KD4DMF
>SnoozeCat@aol.com

Greg Jones, WD5IVD

Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

15. [DSP:28] Re: I'm confused

From: "Steven R. Bible" <srbible@gnatnet.net>
Date: Mon, 11 Nov 1996 12:18:47 -0600 (CST)
To: dsp@tapr.org
Message-ID: <1.5.4.32.19961111181638.0067e21c@gnatnet.net>
Rendered body type: text/plain

Tim said:

[snip]

>While I'm on here typing and mentioning something about the manuals, I
>should also give my 56002 Manual set introduction speech. The two red

[snip]

Has anyone seen the book "Digital Signal Processing Applications With Motorola's
DSP56002 Processor," 1/e, by Mohammed El-Sharkawy, Purdue University,
Indianapolis, Indiana?

It's a new book having been published Aug 1996. El-Sharkawy also has
another DSP book on the DSP56001. This new book even covers the
DSP56002EVM. So me thinks this would be a good text. I found it at the
Computer Literacy Book Store for US$53.00, so it's not too expensive.

 - Steve, N7HPR
 (n7hpr@tapr.org)

16. [DSP:29] Re: FAQ?

From: "Steven R. Bible" <srbible@gnatnet.net>
Date: Mon, 11 Nov 1996 12:29:40 -0600 (CST)
To: dsp@tapr.org
Message-ID: <1.5.4.32.19961111182633.0069a1c4@gnatnet.net>
Rendered body type: text/plain

At 12:05 PM 11/10/96 -0600, you wrote:
>Hi,
>
>Is there an FAQ for this list?

Hello Ray, if you visit TAPR's "DSP Experimenters" web page you will see a
link to a general DSP FAQ that comes from the USENET newsgroup comp.dsp, it
is very useful.

   http://www.tapr.org/dsp

There is also more information on the TAPR DSP page with links to various
other info to get you started. There is also a link to the DSP56002EVM page
that will show all the things that have been done to date with the EVM.

Hope this helps; Have fun!

73,

 - Steve, N7HPR
 (n7hpr@tapr.org)

17. [DSP:32] Re: instruction pipeline

From: Tim Baggett <tim@dsp.sps.mot.com>
Date: Mon, 11 Nov 1996 15:38:41 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.SUN.3.91.961111153006.14605S-100000@aa5df>
Rendered body type: text/plain

On Mon, 11 Nov 1996, wayne roberts wrote:

> Reading thru section 7 of the family manual, the pipeline effect is
> giving me a headache. It looks like one can easily run into problems
> if one isn't completely familiar with the pipeline and what type of
> intructions need NOP after them. Be sure to have plenty of asprin
> on hand when you get the the instruction pipeline section.

Wow, I'm impressed! You're actually reading the book cover to cover? It
was a pretty dry novel for me!

We will be mostly concerned with Case 2 as shown on page 7-5. This
involves the moveing of data into one of the Address Generation Unit
registers, R0-R7, M0-M7, N0-N7. The new contents of the register are not
available during the next instruction. To prevent this you can add a
NOP, or some other instruction that will do something useful.

You don't have to worry about this when using the ALU registers, A, B,
X0, X1, Y0, Y1, X, Y.

The assembler will actually generate warnings or errors for you. I can't
remember which, but it will spot pipeline locks for you. This problem is
more pronounced in the 5630x family since it executes one instruction
per clock cycle (as opposed to one instruction for every two clock
cycles in the 56002) and the pipeline is deeper.

> Also, running the debug-evm evm56k program from a dos window in NT,
> or dosemu from linux, I find that it runs slow unless ran from just
> straight dos. The evm56k program must use some fast timer which cannot
> be supported in NT dos window or linux dosemu. I hate to have the
> machine dedicated to only runing debug-evm when I want to use it.

I can run the EVM56K from a dos window from Windows 95. I haven't tried
it from dosemu or NT, but I appreciate the feedback. I did try running
the debugger from a Softwindows DOS window on this Sun Sparc 20. Talk
about making a Sparc 20 run like a 286.... (I was impressed with
Softwindows BTW, it accuratly modeled Windows complete with the General
Protection Fault, hihi!)

I believe Domain Technologies does sell a windows based version of the
56002 debugger. You may wish to contact them if you are interested.

73,
Tim

Tim Baggett   Motorola DSP Applications
Internet: tim@dsp.sps.mot.com   Semiconductor Products Sector
Internal: RA5367@email   6501 William Cannon Dr West
Phone: (512) 891-6718   Austin, Texas 78735-8598
FAX: (512) 891-4665   http://www.motorola-dsp.com
---

18. [DSP:34] Re: instruction pipeline

From: Tim Baggett <tim@dsp.sps.mot.com>
Date: Tue, 12 Nov 1996 08:49:03 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.SUN.3.91.961112085029.17874A-100000@aa5df>
Rendered body type: text/plain

On Mon, 11 Nov 1996 n4cnw@ibm.net wrote:

>
> Not interested in that, but a protocol description of what's going on
> inside the 68HC705K1 would be nice so that I could write a utility to
> load and execute binaries on the EVM from OS/2 directly.
>

Look for the file 6805_dst.asm that comes with the distribution software
disk.

BTW, what version of software does everyone have? If you have a file
spec.zip, then you have version 2.7 which is the latest 56002EVM
distribution. If you do not have the latest, and would like it, then you
can get it from http://www.mot.com/SPS/DSP/home/eng/bub.html#56000
You will want the file evm27.zip. Note that this contains everything
that comes on the distribution EVM disk, except the Domain Technologies
Debugger.

73
Tim, AA5DF

19. [DSP93DEV:1629] Re: Fat Pipes - revisited

From: Tim Baggett <tim@dsp.sps.mot.com>
Date: Thu, 14 Nov 1996 21:22:21 -0600 (CST)
To: dsp93dev@tapr.org
Message-ID: <Pine.SUN.3.91.961114212044.26523H-100000@aa5df>
Rendered body type: text/plain

On Thu, 14 Nov 1996, Greg Jones, WD5IVD wrote:

> >The costs as quoted are $129 for the ISA interface and $99 for the
> >parallel interface.
>
> retail or wholesale ?
>

Retail.

They are a very small company, and their run orders are quite small.

Tim

---

20. [DSP:60] Re: [dsp2232] The end of AEA

From: Robert McGwier <rwmcgwier@worldnet.att.net>
Date: Wed, 27 Nov 1996 00:37:25 -0600 (CST)
To: dsp@tapr.org
Message-ID: <329BCB4F.1006@worldnet.att.net>
Rendered body type: text/plain

Alan Biddle wrote:
>
> Hi,
>
> Norm posted this "obit" on Compuserve. Interesting.
>
> Alan
>
> Sb: The death of AEA
> Fm: Norm W2JUP 74055,140
> To: All AEA users
>
> Well, my prediction about AEA finally came to pass.
>

For the two cents it is worth, I mostly agree with Norm's analysis.
When Brooks, Pat, and I began work on the DSP2232, George was the
business
person in charge. When he died and Rod took over, it just became
impossible
to work with them. Cooperation towards an end became threats and
finally
lie upon lie upon lie was told to me and my friends. Proctor never even
came close to understanding what it was to work with "talent". He never
understood what it was to work on the bleeding edge. Mike is not as
blameless as Norm would have him portrayed. He acquiesced in much of
what was done and many of Proctor's actions were begun as a consequence
of the paranoia with which Mike looked at the world. Indeed he went to
Montana to recuperate from what he called mental exhaustion. Mike left
people behind who had worked for him and with him for years and ALL of
them (us) were screwed, without a single exception. I wish Mike the
best and I am sorry to see AEA die but with the slash and burn policies
and poor customer relations and poor vendor relations that were a
constant of the Proctor era, I am not at all surprised. I am reviewing
the terms of my agreement with AEA. I believe that what they got from
me
was an unrestricted license on the code I developed for them, whilst I
retained ownership of the code.   I will have my attorney review it to
make sure of it, but I am nearly certain already. With the ambulance
chaser's approval, I will post the annotated source code for all modems
to the TAPR internet servers. Pat has said that he will post the tune
up procedure for the analog front end. I would be happy to help anyone
who wants to work on them with those areas I already know could use
improvement: clock recovery needed to change from DPLL to optimal
sampling,
etc.   I have a laundry list of things that can be done as well as your
getting KA2MOV's tune up procedure for the front end. With the demise
of AEA, you might never be happier.

Bob
--

```
*************************************************************************
* Robert W. McGwier, Ph.D. * Mathematician. Hobbies: Computers,
Astronomy*
* 64 Brooktree Rd.         * Amateur Radio. Scouts: Council Commissioner
*
* East Windsor, NJ 08520   * Post 995 Advisor, Troop 5700 Advancement,
*
* (H) 609-443-8963         * Sanhican #2 (Brotherhood), Used to be a
*
* (F) 609-924-3061         * Buffalo (NE-III-120).  George Washington
*
* (W) 609-279-6240         * Council.  Brownie Troop 193
*
*************************************************************************
```

21. [DSP:84] Re: DSP56001 codes

From: Robert McGwier <rwmcgwier@worldnet.att.net>
Date: Tue, 10 Dec 1996 07:50:45 -0600 (CST)
To: dsp@tapr.org
Message-ID: <32AD684B.4FF1@worldnet.att.net>
Rendered body type: text/plain

Greg:

I will be packaging and sending you a great New Year's present. I have spent a LOT of time at work lately understanding the MIL-STD modems such as those that are in PACTOR-II. I believe that I could roll my own for the DSP56001 in a month. I am not willing to spend a ton of time optimizing the code but I bet if I did roll one, and put it up on the TAPR boards, we would get people to work on it. What do you think?

Bob

```
--
*************************************************************************
* Robert W. McGwier, Ph.D. * Mathematician. Hobbies: Computers,
Astronomy*
* 64 Brooktree Rd.         * Amateur Radio. Scouts: Council Commissioner
*
* East Windsor, NJ 08520   * Post 995 Advisor, Troop 5700 Advancement,
*
* (H) 609-443-8963         * Sanhican #2 (Brotherhood), Used to be a
*
* (F) 609-924-3061         * Buffalo (NE-III-120).  George Washington
*
* (W) 609-279-6240         * Council.  Brownie Troop 193
*
*************************************************************************
```

22. DSP93 + PacCom TNC for DSP93

From: "Wolf D. Hoeller" <Wolf.Hoeller@uibk.ac.at>
Date: Sun, 1 Dec 1996 22:51:27 MET-2
To: dsp-93@tapr.org
Message-ID: <199612012153.AA08512@uibk.ac.at>
Rendered body type: text/plain

Hello DSP93 user.

I tried to get my combo running but some problems appeared:

After connecting the board to the dsp I tried to set the 4 jumpers (labeled as freq1, freq2, ptt1 and ptt2). My radios are a FT480R and a FT780R. Both are prepared to work in 9k6 bps mode. The radios need the PTT switched to GND and the STEP-UP and STEP-DOWN switched to +5V. So I have set the related jumpers how shown in the manual for the TNC page 2.

After loading the "TESTPORT" program to test my device, the PTT switched properly but not the UP/DOWN. I have measured high levels and when this pin is active it is switched to low. No reaction at my radios. BTW: switching by microphone works ok.
Cabels are also ok from pin to pin.

Has Anybody an idea where I am wrong?
Thanks in advance.

```
-----------------------------
 Wolf D. Hoeller, OE7FTJ
 AMSAT-OE
```

```
 Internet: oe7ftj@amsat.org
 AX.25: oe7ftj@oe7xbb.aut.eu
-----------------------------
```

23. Re: [DSP-93:2434] DSP93 + PacCom TNC for DSP93

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Sun, 01 Dec 1996 16:27:55 -0600
To: dsp-93@tapr.org
Message-ID: <32A2066B.35F7@amsat.org>
Rendered body type: text/plain

Wolf D. Hoeller wrote:
>
> Hello DSP93 user.
>
> I tried to get my combo running but some problems appeared:
>
> After connecting the board to the dsp I tried to set the 4 jumpers
> (labeled as freq1, freq2, ptt1 and ptt2). My radios are a FT480R and
> a FT780R. Both are prepared to work in 9k6 bps mode. The radios need
> the PTT switched to GND and the STEP-UP and STEP-DOWN switched
> to +5V. So I have set the related jumpers how shown in the manual for
> the TNC page 2.
>
> After loading the "TESTPORT" program to test my device, the PTT
> switched properly but not the UP/DOWN. I have measured high levels
> and when this pin is active it is switched to low. No reaction at my
> radios. BTW: switching by microphone works ok.
> Cabels are also ok from pin to pin.
>
> Has Anybody an idea where I am wrong?
> Thanks in advance.
>
> -----------------------------
> Wolf D. Hoeller, OE7FTJ
> AMSAT-OE
> Internet: oe7ftj@amsat.org
> AX.25: oe7ftj@oe7xbb.aut.eu
> -----------------------------

You have mis-understood what these jumpers do. They set the INITIAL "at
rest" settings of the UP/DN/PTT lines, not their active direction. The
active direction is chosen by the choice of modem, some of which are
Icom/Kenwood type and others are Yaesu type.
--
Ron W5RKN

also:
rparsons@bga.com

24. Re: [DSP-93:2427] For Sale

From: Rob Carter <rob.c@xtra.co.nz>
Date: Mon, 02 Dec 1996 20:51:56 +1200
To: dsp-93@tapr.org
Message-ID: <32A298AC.4F5A@xtra.co.nz>
Rendered body type: text/plain

Kenneth R. Goodwin, Jr. wrote:
>
> DSP 93 Kit from latest batch (9/96). TAPR box just opened, hardly touched. $400
> TI 320C5x DSP Stater Kit. Never used. $50
> State Machine DCD Kit. $10
>
> All postpaid. Ken Goodwin, K5RG Houston, TexasHello Ken,
My name is Rob. I saw your note re the DSP kit and wonder if you still
have it? What is the asking price? All the best.
Rob Carter ZL2IW. Rarangi Blenheim 7321 New Zealand.

25. Missing parts and component installation isssues

From: Dave Taylor <73563.3352@CompuServe.COM>
Date: 02 Dec 96 10:00:45 EST
To: dsp-93 <dsp-93@tapr.org>
Message-ID: <961202150045_73563.3352_FHD43-1@CompuServe.COM>
Rendered body type: text/plain

Hi;

I am currently building my dsp-93 (aug build) and have come across 2 problems.
 1) I was short shipped the .44ohm/.22 ohm resistors
 2)The IC sockets shiped do not allow me to install j100

Any ideas on any of these issues?

Dave

N1fcc

26. Problems with TESTRAMP

From: WJKF76A@prodigy.com (MR BILL C BARNES)
Date: Mon, 2 Dec 1996 20:41:04, -0500
To: dsp-93@tapr.org
Message-ID: <199612030141.UAA16204@mime2.prodigy.com>
Rendered body type: text/plain

Just completed building the DSP-93 and I am having problems passing
the TESTRAMP test. What does work is the Monitor test, speed test,
memory test, TESTLEDS and TESTPORT. All LED's operate normally and
various pins on port 1 and 2 toggle high and low when ran through
TESTPORT. What does not work is TESTRAMP and TESTBUZZ. The programs
load correctly and the LED's flash, but there is no audio on JP203
pin 10 or out of the speaker. According to the information I have,
this signal is generated by U208. Scope check shows no signal on pins
21 or 22 of U208. All the power supply voltages and grounds around
this chip check OK. I have signals on pins 4, 5, 6, 10, and 14. What
looks odd is pin 12 (DX) stays high all the time, even with a reset.
All though not shown on the schematic, pin 12 is tied to pin 2 of
U210 (following the pc traces). Pulling U210 allows the voltage on
pin 12 of U208 to drop to 1.380 volts. When applying a reset, this
voltage drops to almost zero. Any help would be appreciated.

Bill   AA0UX

27. Re: [DSP-93:2438] Problems with TESTRAMP

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Mon, 02 Dec 1996 20:39:28 -0600
To: dsp-93@tapr.org
Cc: MR BILL C BARNES <WJKF76A@prodigy.com>
Message-ID: <32A392FC.3ECD@amsat.org>
Rendered body type: text/plain

Most likely your problem is a bad U210. Some of the U210s that were
programmed were fine but some were not. Contact the TAPR office, and
tell them what I just told you. They will replace it.

Ron

MR BILL C BARNES wrote:
>
> Just completed building the DSP-93 and I am having problems passing
> the TESTRAMP test. What does work is the Monitor test, speed test,
> memory test, TESTLEDS and TESTPORT. All LED's operate normally and
> various pins on port 1 and 2 toggle high and low when ran through
> TESTPORT. What does not work is TESTRAMP and TESTBUZZ. The programs
> load correctly and the LED's flash, but there is no audio on JP203
> pin 10 or out of the speaker. According to the information I have,
> this signal is generated by U208. Scope check shows no signal on pins
> 21 or 22 of U208. All the power supply voltages and grounds around
> this chip check OK. I have signals on pins 4, 5, 6, 10, and 14. What
> looks odd is pin 12 (DX) stays high all the time, even with a reset.
> All though not shown on the schematic, pin 12 is tied to pin 2 of
> U210 (following the pc traces). Pulling U210 allows the voltage on
> pin 12 of U208 to drop to 1.380 volts. When applying a reset, this
> voltage drops to almost zero. Any help would be appreciated.
>
> Bill   AA0UX

--
Ron W5RKN

also:
rparsons@bga.com

28. DSP-93 New Software

From: RobertsM@jsc.mil
Date: Tue, 10 Dec 1996 14:36:11 -0500
To: dsp-93@tapr.org
Message-ID: <96Dec10.144150est.26501@annap2.jsc.mil>
Rendered body type: text/plain

All;
  Is there any activity in developing DSP-93 software, or is it a dead issue?
Seems to me that there is very little activity on the software development
side (newest software listing is June 95) for the DSP-93.
  73 Mel W3MR
  robertsm@jsc.mil

29. RE:DSP-93 New Software

From: "Wheatley, Maurice" <mwheatle@TRSYSTEMS.com>
Date: Tue, 10 Dec 1996 16:18:42 -0500
To: "'dsp-93'" <dsp-93@tapr.org>
Message-ID: <c=US%a=_%p=TR_SYSTEMS%l=WEBSERVER2-961210211842Z-47@WWW.TRSYSTEMS.COM>
Rendered body type: text/plain

>All;
> Is there any activity in developing DSP-93 software, or is it a dead
issue?
>Seems to me that there is very little activity on the software development
>side (newest software listing is June 95) for the DSP-93.
> 73 Mel W3MR
> robertsm@jsc.mil

I hope it's not a dead issue since I have a certain interest in the
DSP-93 [$400+ dollars worth of interest! ;-)].   I can't speak for
anyone else but I've been using it mainly as a learning tool to get up
to speed in DSP techniques. I plan on uploading another 1200bps FSK
modem with a few twists here once the documentation (yech!) is complete.

A lot of the current apps either don't include source code or have very
little documentation so aren't very useful learning devices for those of
us just coming up to speed.(David Mills HF modem being an exception)
This may contribute to the lack of software activity. Also I haven't
seen any requests from non-programmers as to any ideas they might have
for projects. That kind of input may spur some more activity here.

Just some thoughts,

Moe AE4JY

mwheatle@trsystems.com

30. Re: [DSP-93:2440] DSP-93 New Software

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Tue, 10 Dec 1996 16:15:18 -0600
To: dsp-93@tapr.org
Message-ID: <32ADE0F5.5533@amsat.org>
Rendered body type: text/plain

RobertsM@jsc.mil wrote:
>
> All;
>   Is there any activity in developing DSP-93 software, or is it a dead issue?
> Seems to me that there is very little activity on the software development
> side (newest software listing is June 95) for the DSP-93.
>   73 Mel W3MR
>   robertsm@jsc.mil

I think you are right. Those of us who wrote software created what we
needed and were interested in and then stopped. It's now up to those
that follow to pick up the torch. Help is as close as you e-mailer.
--
Ron W5RKN

also:
rparsons@bga.com

31. Re: [DSP-93:2441] RE:DSP-93 New Software

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Tue, 10 Dec 1996 16:34:34 -0600
To: dsp-93@tapr.org
Message-ID: <32ADE579.2AFD@amsat.org>
Rendered body type: text/plain

Wheatley, Maurice wrote:
>
> >All;
> > Is there any activity in developing DSP-93 software, or is it a dead
> issue?
> >Seems to me that there is very little activity on the software development
> >side (newest software listing is June 95) for the DSP-93.
> > 73 Mel W3MR
> > robertsm@jsc.mil
>
> I hope it's not a dead issue since I have a certain interest in the
> DSP-93 [$400+ dollars worth of interest! ;-)].   I can't speak for
> anyone else but I've been using it mainly as a learning tool to get up
> to speed in DSP techniques. I plan on uploading another 1200bps FSK
> modem with a few twists here once the documentation (yech!) is complete.
>

Keep up the good work. If you need help, ask. Someone here can probably
help you.

--
Ron W5RKN

also:
rparsons@bga.com

32. Re: [DSP-93:2442] Re: DSP-93 New Software

From: George Cserenyi <zsolt@direct.ca>
Date: Tue, 10 Dec 1996 15:40:00 -0800 (PST)
To: "Ronald G. Parsons" <w5rkn@amsat.org>
Cc: dsp-93@tapr.org
Message-ID: <Pine.LNX.3.91.961210153809.2674A-100000@boxer.direct.ca>
Rendered body type: text/plain

Perhaps a silly question, but here it goes...

On Tue, 10 Dec 1996, Ronald G. Parsons wrote:

> RobertsM@jsc.mil wrote:
> >
> > All;
> >   Is there any activity in developing DSP-93 software, or is it a dead issue?
> > Seems to me that there is very little activity on the software development
> > side (newest software listing is June 95) for the DSP-93.
> >   73 Mel W3MR
> >   robertsm@jsc.mil
>
> I think you are right. Those of us who wrote software created what we
> needed and were interested in and then stopped. It's now up to those
> that follow to pick up the torch. Help is as close as you e-mailer.

Can the above mentioned library of software be used with the EVM5002
boards?
George
ve7ciz

> --
> Ron W5RKN
>
> also:
> rparsons@bga.com
>
>
>

33. RE:DSP-93 New Software

From: morganb@inetport.com (Robert B. Morgan)
Date: Tue, 10 Dec 1996 18:35:37 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <199612110035.SAA18642@admin.inetport.com>
Rendered body type: text/plain

>
>>All;
>> Is there any activity in developing DSP-93 software, or is it a dead
>issue?
>> 73 Mel W3MR
>> robertsm@jsc.mil
>

>I hope it's not a dead issue since I have a certain interest in the
>DSP-93 [$400+ dollars worth of interest! ;-)].   I can't speak for
>anyone else but I've been using it mainly as a learning tool to get up
>to speed in DSP techniques. I plan on uploading another 1200bps FSK
>modem with a few twists here once the documentation (yech!) is complete.
>
>A lot of the current apps either don't include source code or have very
>little documentation so aren't very useful learning devices for those of
>us just coming up to speed.(David Mills HF modem being an exception)
>This may contribute to the lack of software activity. Also I haven't
>seen any requests from non-programmers as to any ideas they might have
>for projects. That kind of input may spur some more activity here.
>Just some thoughts,
>Moe AE4JY
>mwheatle@trsystems.com

I will sure second the thought on the lack of source code. That was
quite a disappointment in the learning process. I wasn't impressed
at all with the proprietary attitude of some. Amateur radio is
one of the best hands-on learning processes there is, and that got
thwarted here. And I had a $400 investment too.

73 de Bob WB5AOH
Robert Morgan
Austin Texas
morganb@admin.inetport.com

34. RE:DSP-93 New Software

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Wed, 11 Dec 1996 02:13:34 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961211021334.006c1498@camel.campbell.edu>
Rendered body type: text/plain

Hi all,

Historically I've been the "software librarian" for the DSP-93 project since
the beta testing days. I'll dig thru my stuff and make sure I have
everything posted that is available.

I haven't seen the disks that were included with the latest batches of kits,
but be sure to check out ftp.tapr.org by anonymous login and find
/tapr/dsp93/diskettes/update1.zip and make sure the files in the update1.zip
file are on your disks. If not, grab update1.zip and there are a few more
things in there of use.

One comment--the files distributed on diskette with the kits have been
available by anonyous ftp for a L-O-N-G time. The source code that was
released and distributed was/is included in these files. The source code
that was NOT released was NOT on the diskettes. The downloading,
installation, and printing of the files, manuals, and building docs is all
possible. There should not have been many "surprises" when your DSP-93 kit
was brought to your door.

(shields up Capt'n)

At 18:40 12/10/96 -0600, you wrote:
>>
>>>All;
>>> Is there any activity in developing DSP-93 software, or is it a dead
>>issue?
>>> 73 Mel W3MR
>>> robertsm@jsc.mil
>>
>>I hope it's not a dead issue since I have a certain interest in the
>>DSP-93 [$400+ dollars worth of interest! ;-)].   I can't speak for
>>anyone else but I've been using it mainly as a learning tool to get up
>>to speed in DSP techniques. I plan on uploading another 1200bps FSK
>>modem with a few twists here once the documentation (yech!) is complete.
>>
>>A lot of the current apps either don't include source code or have very
>>little documentation so aren't very useful learning devices for those of
>>us just coming up to speed.(David Mills HF modem being an exception)
>>This may contribute to the lack of software activity. Also I haven't
>>seen any requests from non-programmers as to any ideas they might have
>>for projects. That kind of input may spur some more activity here.
>>Just some thoughts,
>>Moe AE4JY
>>mwheatle@trsystems.com

>
>I will sure second the thought on the lack of source code. That was
>quite a disappointment in the learning process. I wasn't impressed
>at all with the proprietary attitude of some. Amateur radio is
>one of the best hands-on learning processes there is, and that got
>thwarted here. And I had a $400 investment too.
>
>73 de Bob WB5AOH
>Robert Morgan
>Austin Texas
>morganb@admin.inetport.com
>
>
>
>

Mark L. Hammond   [KC4EBR]

35. Re: [DSP-93:2445] RE:DSP-93 New Software

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Tue, 10 Dec 1996 22:41:26 -0600
To: dsp-93@tapr.org
Message-ID: <v0300783aaed3e4607baf@[208.134.134.42]>
Rendered body type: text/plain

Let me make comments to both messages (see below).

First. When Frank Perkins wrote all this free and available source code for the DSP-93, comments were always at a minimum. Maybe someone will take on the project and rewrite Frank's code and comment them. That would be a good way to learn things.

We were very fortunate to have Frank dedicate several hundred hours of time in the development of the modems and code segments included with the DSP-93. Without them the DSP-93 would be another DSP box without code. If it were not without Frank's commitment to get these done -- I am not sure what we would have done.

BIG THANKS FRANK!!!!

I think Ron, W5RKN, outlined it correctly the other night in saying that the original push in software development came from a few people doing things for them self. That is the fact with most TAPR projects. The issue now is that these developers after three years of doing things are off doing other new things. It was always the hope that others would program additional code....Dave Mills has done it -- where are the others. Anyone can do this -- it just takes a commitment and effort to make it happen, just like Frank did in the beginning. I believe one reason for a slow down in development is because many developers either think they want floating point or think the 40Mhz is to slow. That will be something we will be working on in the coming months, but it will continue to remain an issue. Like any first generation kit, it will become old.....look at the TNC-1 or especially how often you upgrade your computers. You end up getting a new widget eventually....just a fact of life. Why would a DSP platform be any different. How much did you pay for the mother board that lasted maybe 6-12 months before getting replaced ? and the computer a year or so before that and the one before that one ?

As to the investment....not sure what other investment you could make that would deliver the same open functionality as the DSP-93. Now that AEA has closed, the DSP-93 is the last amateur DSP box with all the major modes supported. PacComm and HAL both have DSP boxes, but they are both closed and I don't see much development on them now either. The EVM boarda re an option, but don't have the nice radio interface, which is nice after you build up an interface for one of the EVM boards.

As to Bob message on 'proprietary attitude of some about source code'. I can't believe I am hearing this from you Bob. I know you are familiar with the players and even talk to them at HamCom and other meetings. If anything the attitude has been a TAPR and AMSAT one and not any one person. So -- if you want to blame someone call me up on the phone...please.

I was talking to Frank about releasing the rest of the source code, since it made sense in the current project cycle. AMSAT and TAPR felt that we should keep the high-end source closed in hopes of signing an OEM deal for the unit. While kit sales are good, if we had been able to sign an OEM deal, the OEM would have generated a lot more money for P3D and TAPR projects than just kit sales. You have to remember the purpose of the

DSP-93 was to get a DSP in the hands of amateurs, but also be able to generate some amount of cash for both groups, espically AMSAT at the time. But after this message, I bet I will have trouble getting Frank to work on amateur radio stuff at all. I can imagine the message I will be getting from Frank in reply to the last message I sent in regards to the source code --- he will probably want to go off work on his stock portfolio for the next couple of years. I wouldn't blame him either. The source code in question is like three source segments which just have additions to the code that is already released.

Also, I just don't see where "Amateur radio is one of the best hands-on learning processes there is, and that got thwarted here." ? How did it get thwarted. I know you have been playing with it and had it doing 9600 baud and some other stuff -- what else did you want ? The additional code that was not released wasn't going to help if you didn't learn a lot already from the simpler/easier released segments. There is nothing stopping you from taking any of the core segments and doing the same thing Frank did --- which was spend his time learning how it all worked and then writing the code. Frank wasn't a DSP guru when we started this project. He spent his time researching, writing, and asking questions until it generated what we have on the DSP-93. Without the code from Frank this kit would have been a massive failure.

It might not be the prettiest code in the world, but it sure beats a $400 box with nothing on it all. A DSP-93 as it gets shipped now allows someone to either get a DSP operational and working on the satellites and several modes (really working with decent modems) or provides a first step platform for learning DSP...without the need to build up your own radio interface.

Bob -- If you don't want your DSP-93 unit, I bet you can find someone to purchase your built unit...Dorothy gets calls at the office from time to time for completed unit. She could easily point someone to you. I might even purchase it from you, since I never got to keep any of the kits I built and tested.

Greg Jones, WD5IVD

>>
>>>All;
>>> Is there any activity in developing DSP-93 software, or is it a dead
>>issue?
>>> 73 Mel W3MR
>>> robertsm@jsc.mil
>>
>>I hope it's not a dead issue since I have a certain interest in the
>>DSP-93 [$400+ dollars worth of interest! ;-)]. I can't speak for
>>anyone else but I've been using it mainly as a learning tool to get up
>>to speed in DSP techniques. I plan on uploading another 1200bps FSK
>>modem with a few twists here once the documentation (yech!) is complete.
>>
>>A lot of the current apps either don't include source code or have very
>>little documentation so aren't very useful learning devices for those of
>>us just coming up to speed.(David Mills HF modem being an exception)
>>This may contribute to the lack of software activity. Also I haven't
>>seen any requests from non-programmers as to any ideas they might have
>>for projects. That kind of input may spur some more activity here.
>>Just some thoughts,
>>Moe AE4JY
>>mwheatle@trsystems.com
>
>I will sure second the thought on the lack of source code. That was
>quite a disappointment in the learning process. I wasn't impressed
>at all with the proprietary attitude of some. Amateur radio is
>one of the best hands-on learning processes there is, and that got
>thwarted here. And I had a $400 investment too.
>
>73 de Bob WB5AOH
>Robert Morgan
>Austin Texas
>morganb@admin.inetport.com

Greg Jones, WD5IVD
Austin, Texas

wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

36. Re: [DSP-93:2445] RE:DSP-93 New Software

From: Mills@huey.udel.edu
Date: Tue, 10 Dec 96 23:40:37 EST
To: dsp-93@tapr.org
Cc: dsp-93@tapr.org
Message-ID: <9612102340.aa04371@huey.udel.edu>
Rendered body type: text/plain

Bob,

I won't take sides here, since I understand the motivation of those folk
who wish to withold source code. I very much intended my code to be
a teaching vehicle and demonstration of what I thought was a sound
program structure, as well as an example of a provably optimum receiver.
Guys like Phil Karn are among my heroes - I've learned lots from his
source code and may even have taught a thing or two from mine. As I
teach for a living, you can understand my zeal in such things.

Dave, w3hcf

37. RE:New Software

From: "Wheatley, Maurice" <mwheatle@TRSYSTEMS.com>
Date: Wed, 11 Dec 1996 10:35:52 -0500
To: "'dsp-93'" <dsp-93@tapr.org>
Message-ID: <c=US%a=_%p=TR_SYSTEMS%l=WEBSERVER2-961211153552Z-110@WWW.TRSYSTEMS.COM>
Rendered body type: text/plain

Sorry guys, I didn't mean to create a firestorm!

I thought I was conveying that I like the DSP93 and it isn't a dead
issue or else I wouldn't have spent the bucks or the last couple of
months writing code for it. The lack of source code was merely an
observation and not a negative comment on any code contributor. I write
code for a living and wouldn't think of giving away detailed source code
on our products. Those who make a living writing code and selling
products for amateur radio TNC's and the like have every right to
protect their livelihood. My interest in Amateur radio though is
strictly fun and learning so I don't care who uses or modifies source
code I write for this hobby.(bugs and all ;-))

I appreciate the extra effort others make to explain the simple stuff to
boneheads like me on these SIG's and well as any commented source code
examples that can be made available.

73's and Happy Holidays

Moe AE4JY

mwheatle@trsystems.com

38. FO-29 running 1200PSK

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Tue, 17 Dec 1996 15:32:51 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961217153251.0068ba64@camel.campbell.edu>
Rendered body type: text/plain

Hi gang,

Most of you probably have heard that FO-29 is running 1200PSK. This is a
neat opportunity to see and use some of WB5IPM Frank's spiffy DSP-93 code.

The peculiar sound of this bird is from a "flag" that is sent almost
constantly on this bird. On the other 1200 birds (AO-16, 18, 19) the flag
is not sent very often.

What Frank's 1200PSK modems do is light LED 1 when one of these flags is
sent. On FO-29, since the flag is sent all the time, it really shows off
LED 1 MUCH more than you can see on the other birds. Makes for quite a good
"DSP-93 LED Christmas show"!

Thought you might be looking for something fun to do with the DSP-93 if you
just built it...

Mark L. Hammond   [KC4EBR]

39. unsubscribe

From: "Eric M. de Castro" <emcastro@pobox.com>
Date: Wed, 18 Dec 1996 09:50:33 -0300
To: "'dsp-93@tapr.org'" <dsp-93@tapr.org>
Message-ID: <01BBED1E.49476C80@TBASP01>
Rendered body type: text/plain

[Empty message body]

40. How does the Icom 821H work ?

From: jrc@brainiac.mn.org (Jeffrey Comstock)
Date: Thu, 19 Dec 1996 01:30:05 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <9612190730.AA16263@brainiac.mn.org>
Rendered body type: text/plain

I just ordered my dsp-93 kit today, so I am a new guy :-) Hello everyone ! I
am looking forward to participating in the group here.

My question is does anyone have any comments on the new ICOM 821H as a
satellite ground station ? It says "plug and play" in the pamphlet -
is any surgery required to get it going at 9600bps? I understand they
kind of blew it with the ICOM 820H in that respect.

--
Jeffrey Comstock
INET: jrc@brainiac.mn.org
WEB: http://www.skypoint.net/members/jrc/
CW: -. .-. ----- -..

41. Re: [DSP-93:2452] How does the Icom 821H work ?

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Thu, 19 Dec 1996 16:46:43 +0000
To: dsp-93@tapr.org
Message-ID: <32B97171.3093@amsat.org>
Rendered body type: text/plain

Jeffrey Comstock wrote:
>
> I just ordered my dsp-93 kit today, so I am a new guy :-) Hello everyone ! I
> am looking forward to participating in the group here.
>
> My question is does anyone have any comments on the new ICOM 821H as a
> satellite ground station ? It says "plug and play" in the pamphlet -
> is any surgery required to get it going at 9600bps? I understand they
> kind of blew it with the ICOM 820H in that respect.

Welcome! Have heard good things about the mods made by Icom when they
reved the 820 --> 821. Should be easy to hook up.

I'd ask one thing. Look at our ops manual and modify one of the Icom
sections to fit the 821. Send me the result and I'll incorporate it into
the manual. Then all can share your knowledge.

Thanks.
--
Ron W5RKN

also:
rparsons@bga.com

42. New Modem

From: "Wheatley, Maurice" <mwheatle@TRSYSTEMS.com>
Date: Fri, 27 Dec 1996 14:09:33 -0500
To: "'dsp-93'" <dsp-93@tapr.org>
Message-ID: <c=US%a=_%p=TR_SYSTEMS%l=WEBSERVER2-961227190933Z-98@WWW.TRSYSTEMS.COM>
Rendered body type: text/plain

Greetings,
I uploaded a new modem program for the DSP-93. It's named KS12V10.ZIP
and is on the tapr.org/dsp93/upload directory. The modem itself is not
that interesting but some may find it useful as another example of
programming techniques. It is fairly well documented and could be used
as a template for more exciting modem or other DSP-93 applications.

Features:

```
Bell 202 1200 Baud AFSK tone detection and generation.
Performs HDLC Frame assembly and disassembly.
Implements open squelch carrier detection.
Communication with modem uses KISS protocol over the DSP-93 UART link.

This KS12V10.ZIP file should contain the following files:

README.TXT       -- This text file
KS12MAIN.OBJ     -- Object code that is downloaded to DSP-93
KS12USER.PDF     -- User Manual in Adobe Acrobat format
KS12TECH.PDF     -- Technical Description in Adobe Acrobat format
KS12MAIN.ASM     -- DSP-93 Source code file #1
KS12AIN.ASM      -- DSP-93 Source code file #2
KS12AOUT.ASM     -- DSP-93 Source code file #3
KS12HIN.ASM      -- DSP-93 Source code file #4
KS12HOUT.ASM     -- DSP-93 Source code file #5
KS12KIN.ASM      -- DSP-93 Source code file #6
KS12KOUT.ASM     -- DSP-93 Source code file #7
KS12DATA.TBL     -- DSP-93 Source code data file #8

Happy New Year!

Moe Wheatley  AE4JY
mwheatle@trsystems.com
```

43. Re: [DSP-93:2383] Message for Owners of the PacComm TNC for the TAPR/AMSAT DSP-93

```
From: py4lf@bis.com.br (Julio Morais)
Date: Sat, 28 Dec 1996 14:34:34 -0200
To: dsp-93@tapr.org
Message-ID: <9612281646.AA13666@brasilnet.com.br>
Rendered body type: text/plain
```

```
>To: dsp-93@tapr.org
>From: py4lf@bis.com.br (Julio Morais)
>Subject: Re: [DSP-93:2383] Message for Owners of the PacComm TNC for the
TAPR/AMSAT DSP-93
>
>
>>My intent is to exchange units with any existing owner who has brought his
>>TNC to the meeting. Priority will be given to overseas (actually out of the
>>country) owners where shipping difficulties are more of a factor.
>>
>>Anyone who does not bring their unit along, or does not want to have to
>>return the older unit may take an upgrade kit and perform the modifications
>>themselves.
>>
>>There is no charge for either approach.
>>
>>Be advised that this upgrade substantially solves the problems reported
>>with the TNC. There remain some difficulties with the PASSTHRU functions
>>which are reasonably believed to lie with the DSP-93 firmware and these
>>will have to be addressed by the DSP-93 development group.
>>
>>
>>Gwyn Reedy, W1BEL
>>PacComm Packet Radio Systems
>>http://www.paccomm.com
>>
>>
>>
>
>......Hello Gwyn! I´ll appreceat to receive all necessary to do the upgrade .
>73´s!
>
--------------------------------
        Hello Gwyn! Yesterday, I got via air mail the package with the
upgrade kit! Next week, after some hollidays, I´ll start the upgrade job and
I´ll give you the results.
        Thanks for your kindness!
        Best 73´s from Julio!
```

44. testramp doesn't

```
From: wd0e@amsat.org (Jim White)
Date: Sun, 29 Dec 1996 11:36:33 -0700
To: dsp-93@tapr.org
Message-ID: <v01540b01aeec6a696cba@[208.206.177.120]>
Rendered body type: text/plain
```

Completed the DSP93 build.
Monitor ok
Speed test ok
Memory test ok
testleds ok

testramp: no output from speaker, no signal on JP203/10, no signal at
U208/21&22. LEDs flash in sequence then go out. Same result from EPROM or
download from PC.
What should I check next?

Jim White
wd0e@amsat.org

45. Re: [DSP-93:2456] testramp doesn't

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Sun, 29 Dec 1996 19:42:16 +0000
To: dsp-93@tapr.org
Message-ID: <32C6C997.3D10@amsat.org>
Rendered body type: text/plain

Jim White wrote:
>
> Completed the DSP93 build.
> Monitor ok
> Speed test ok
> Memory test ok
> testleds ok
>
> testramp: no output from speaker, no signal on JP203/10, no signal at
> U208/21&22. LEDs flash in sequence then go out. Same result from EPROM or
> download from PC.
> What should I check next?
>
> Jim White
> wd0e@amsat.org

If everything checks out except TESTRAMP and TESTBUZZ, it is probably a
bad U210. TAPR had a bad bunch of U210s where quite a number in the
batch were bad. Other were OK.

Contact the TAPR office about getting it replaced.

--
Ron W5RKN

also:
rparsons@bga.com

46. Re: [DSP-93:2454] New Modem

From: jrc@brainiac.mn.org (Jeffrey Comstock)
Date: Mon, 30 Dec 1996 01:08:17 -0600 (CST)
To: dsp-93@tapr.org
Message-ID: <9612300708.AA14147@brainiac.mn.org>
Rendered body type: text/plain

>
> Greetings,
> I uploaded a new modem program for the DSP-93. It's named KS12V10.ZIP
> and is on the tapr.org/dsp93/upload directory. The modem itself is not

The UNIX file permissions do not allow download for anonymous ftp users.
Could someone please fix that ? This looks like some interesting software.

47. Re: [DSP-93:2458] Re: New Modem

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Mon, 30 Dec 1996 01:50:12 -0600
To: dsp-93@tapr.org
Message-ID: <v03007801aeed23b9aed3@[129.120.111.42]>
Rendered body type: text/plain

When someone uploads something to the upload area, they have to send e-mail
to Mark Hammond, who maintains the area to make it readable.

This change was made several weeks ago, becuase of the illegal uploads of
copyrighted software that was happening from pirate groups and individuals

The problem with having TAPR.ORG setting at a site with better than T1

access to the Internet.

Cheers - Greg

>>
>> Greetings,
>> I uploaded a new modem program for the DSP-93. It's named KS12V10.ZIP
>> and is on the tapr.org/dsp93/upload directory. The modem itself is not
>
>The UNIX file permissions do not allow download for anonymous ftp users.
>Could someone please fix that ? This looks like some interesting software.

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

48. Re: [DSP-93:2459] Re: New Modem

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Mon, 30 Dec 1996 13:25:01 +0000
To: dsp-93@tapr.org
Message-ID: <1.5.4.32.19961230132501.00675da8@camel.campbell.edu>
Rendered body type: text/plain

I have fixed the permissions on the file. The file will remain in the
"upload" directory for a few days. When I move the file, I will announce
the new location to the group.

Yes, this looks like a spiffy program (thanks Moe!). Sorry for the download
problems--I just returned from an extended holiday. The file should be
available to all now.

At 01:45 12/30/96 -0600, you wrote:
>When someone uploads something to the upload area, they have to send e-mail
>to Mark Hammond, who maintains the area to make it readable.
>
>This change was made several weeks ago, becuase of the illegal uploads of
>copyrighted software that was happening from pirate groups and individuals
>
>The problem with having TAPR.ORG setting at a site with better than T1
>access to the Internet.
>
>Cheers - Greg
>
>>>
>>> Greetings,
>>> I uploaded a new modem program for the DSP-93. It's named KS12V10.ZIP
>>> and is on the tapr.org/dsp93/upload directory. The modem itself is not
>>
>>The UNIX file permissions do not allow download for anonymous ftp users.
>>Could someone please fix that ? This looks like some interesting software.
>
>
>-----
>Greg Jones, WD5IVD
>Austin, Texas
>wd5ivd@tapr.org
>http://www.tapr.org/~wd5ivd
>-----
>
>
>
>

Mark L. Hammond   [KC4EBR]

49. unsubscribe

From: "Richard Ruhl" <raruhl@pldi.net>
Date: Mon, 30 Dec 1996 14:09:59 +0000
To: dsp-93@tapr.org
Message-ID: <199612301838.NAA19824@kingfisher.nortel.net>
Rendered body type: text/plain

Please unsubscribe. Thank You

50. Newbie Qs

From: Ken Harris <kjh@surf.shoreline-studios.com>
Date: Mon, 30 Dec 1996 12:36:52 -0800 ()
To: dsp-93@tapr.org
Message-ID: <Pine.WNT.3.95.961230122839.-177127A-100000@rem1.shoreline-studios.com>
Rendered body type: text/plain

I'm kinda new to this....

        I'm interested in DSP modems. I'm interested in HF
and PacSat digital.

        Some questions:

        What is the cost of the DSP93 (kit form)? I thought I
saw it listed for $400 or so. How does that compare to EVM56002?
I saw it for $85 (but they aren't accepting any more orders).

        What are the pros & con of DSP93 vs. EVM56002? Would
it be accurate to say that the EVM56002 is cheaper and better,
but the DSP93 has more software? Are there any other DSP modems
I should consider?

51. Re: [DSP-93:2462] Newbie Qs

From: "Ronald G. Parsons" <w5rkn@amsat.org>
Date: Mon, 30 Dec 1996 21:55:11 +0000
To: dsp-93@tapr.org
Message-ID: <32C83A3D.1BCF@amsat.org>
Rendered body type: text/plain

Ken Harris wrote:
>
>   I'm kinda new to this....
>
>   I'm interested in DSP modems. I'm interested in HF
> and PacSat digital.
>
>   Some questions:
>
>   What is the cost of the DSP93 (kit form)? I thought I
> saw it listed for $400 or so. How does that compare to EVM56002?
> I saw it for $85 (but they aren't accepting any more orders).
>
>   What are the pros & con of DSP93 vs. EVM56002? Would
> it be accurate to say that the EVM56002 is cheaper and better,
> but the DSP93 has more software? Are there any other DSP modems
> I should consider?

You can read all about the DSP-93 at
http://www.tapr.org/tapr/html/dsp93.html
For USA sales the price is $430 plus shipping.

The EVM (as I understand it) is a 56002 evaluation and development kit.
It does not have all the circuitry for a plug-and-play modem. I don't
know what software ia available for the EVM.

If you want a pre-built commercial DSP modem, look at the AEA DSP-2232
(may find some deals with AEA's demise) of the DSP-12. Stay away from
the AEA DSP-232 (my opinion).

--
Ron W5RKN

also:
rparsons@bga.com

52. Re: [DSP-93:2461] unsubscribe

From: Roy Welch <rdw@crl.com>
Date: Tue, 31 Dec 1996 00:29:03 +0000
To: dsp-93@tapr.org
Message-ID: <32C85E4F.CA9@crl.com>
Rendered body type: text/plain

Richard Ruhl wrote:
>

> Please unsubscribe. Thank You

Please don't send your request to this mailing list of several thousand
people. Send it to listserv@amsat.org per the instructions given at
sign up time.

--
73, Roy

Internet: w0sl@amsat.org
Home Page: http://www.crl.com/~rdw/w0sl.html

53. Re: [DSP-93:2463] Re: Newbie Qs

From: George Cserenyi <zsolt@direct.ca>
Date: Mon, 30 Dec 1996 17:47:24 -0800 (PST)
To: "Ronald G. Parsons" <w5rkn@amsat.org>
Cc: dsp-93@tapr.org
Message-ID: <Pine.LNX.3.91.961230174354.3448B-100000@boxer.direct.ca>
Rendered body type: text/plain

On Mon, 30 Dec 1996, Ronald G. Parsons wrote:
[...] pollution control
> If you want a pre-built commercial DSP modem, look at the AEA DSP-2232
> (may find some deals with AEA's demise) of the DSP-12. Stay away from
> the AEA DSP-232 (my opinion).
[...] pollution control
Can u tell us pse in a nutshell what's dhe difference beteen the above
three units? Is there a website perhaps where we could look at the specs?
Thanks,
George

54. Re: [DSP-93:2464] Re: unsubscribe

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Mon, 30 Dec 1996 20:19:53 -0600
To: dsp-93@tapr.org
Message-ID: <v03007843aeee28a01e35@[129.120.111.42]>
Rendered body type: text/plain

Wrong list Roy.

He needs to send an e-mail to

listserv@tapr.org

with

unsub dsp-93

in the message body.

I guess DSP-93 looks like keps@amsat.org after a while :-)

Cheers -- Greg

>Richard Ruhl wrote:
>>
>> Please unsubscribe. Thank You
>
>Please don't send your request to this mailing list of several thousand
>people. Send it to listserv@amsat.org per the instructions given at
>sign up time.
>
>--
>73, Roy
>
>Internet: w0sl@amsat.org
>Home Page: http://www.crl.com/~rdw/w0sl.html

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

55. Re: [DSP-93:2464] Re: unsubscribe

From: Roy Welch <rdw@crl.com>
Date: Tue, 31 Dec 1996 04:25:50 +0000
To: dsp-93@tapr.org
Message-ID: <32C895CE.1606@crl.com>
Rendered body type: text/plain

Roy Welch wrote:
>
> Richard Ruhl wrote:
> >
> > Please unsubscribe. Thank You
>
> Please don't send your request to this mailing list of several thousand
> people. Send it to listserv@amsat.org per the instructions given at
> sign up time.
>
> --
> 73, Roy
>
> Internet: w0sl@amsat.org
> Home Page: http://www.crl.com/~rdw/w0sl.html

I appologize to Richard for the above message. I have been besieged
with people improperly trying to unsubscribe to the AMSAT lists that I
missed this one as being a TAPR request.

--
73, Roy

Internet: w0sl@amsat.org
Home Page: http://www.crl.com/~rdw/w0sl.html

56. Re: [DSP-93:2466] Re: unsubscribe

From: Roy Welch <rdw@crl.com>
Date: Tue, 31 Dec 1996 04:33:22 +0000
To: dsp-93@tapr.org
Message-ID: <32C89792.73D4@crl.com>
Rendered body type: text/plain

Greg Jones, WD5IVD wrote:
>
> Wrong list Roy.
>
> He needs to send an e-mail to
>
> listserv@tapr.org
>
> with
>
> unsub dsp-93
>
> in the message body.
>
> I guess DSP-93 looks like keps@amsat.org after a while :-)
>
> Cheers -- Greg
>
> >Richard Ruhl wrote:
> >>
> >> Please unsubscribe. Thank You
> >
> >Please don't send your request to this mailing list of several thousand
> >people. Send it to listserv@amsat.org per the instructions given at
> >sign up time.
> >
> >--
> >73, Roy
> >
> >Internet: w0sl@amsat.org
> >Home Page: http://www.crl.com/~rdw/w0sl.html
>
> -----
> Greg Jones, WD5IVD
> Austin, Texas
> wd5ivd@tapr.org
> http://www.tapr.org/~wd5ivd
> -----

Yes, I realized the error when I saw it come back. I meant to send it

only to him, but the "reply to" went astray. I sent him an appology.

--
73, Roy

Internet: w0sl@amsat.org
Home Page: http://www.crl.com/~rdw/w0sl.html

57. Re: [DSP-93:2454] New Modem

From: "Donald E. Haselwood" <k4jpj@appstate.campus.mci.net>
Date: Tue, 31 Dec 1996 11:25:59 -0500
To: dsp-93@tapr.org
Message-ID: <199612311630.LAA21155@aus-c.mp.campus.mci.net>
Rendered body type: text/plain

Moe,

Congratulations!

I just downloaded KS12V10.ZIP and skimmed through all the files. I really like the documentation. The PDF files are absolutely professional and the source comments are crystal-clear. Just excellent.

Anyone getting into DSP and modems, or even just wanting to learn the details of how the "standard" packet is sent, has a great resource here.

Don, W4GWC

February 1997

Original source file: dsp.9702
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9702

1. Assembler Syntax

```
From: "L. J. Shepherd" <ljs@west.net>
Date: Sun, 9 Feb 1997 21:46:17 -0800 (PST)
To: dsp@tapr.org
Message-ID: <199702100546.VAA28708@acme.sb.west.net>
Rendered body type: text/plain
```

Hello Group:
        I'm starting out with the EVM......it tests very nicely with all the demos included in the package.

        Now I'm wanting to assemble a file, in this case Johan's SLOWBPSK.ASM ....using Motorola's ASM56000 assembler, my selected syntax is: ASM56000 -a -b -l slowbpsk.asm   when I execute this command, the assembler runs but displays many (at least 17 errors), and there is no .CLD or .LST file in the directory. I'm running the assembler from a DOS prompt. If I run using the syntax   ASM56000 slowbpsk.asm   , the scan makes it to the end of the file with no errors displayed, so I suspect I'm doing something wrong with the softswitches or output file specification within the command.

        I'm reading the ASM_MAN file that Tim recently posted in his EVM28 collection......but so far haven't found what I need for this problem. Any suggestions would be sincerely appreciated....
                                                73   JIM K6OYY   TAPR 502

---

2. Re: [DSP:310] EVM assembler woes

```
From: dbraun@ichips.intel.com
Date: Mon, 10 Feb 1997 14:05:39 +0200
To: dsp@tapr.org
Message-ID: <199702101218.AA079617138@dtthp135.jf.intel.com>
Rendered body type: text/plain
```

> I have tried to assemble the g3ruh.asm file but am getting LOTS of errors
> during assembly. Basically, I copied all of the .asm files in the
> evmcode.zip file (from n1owu.zip) into the same directory as all of the
> files that were in evm28.exe. Silly me--I thought that would be sufficient.
>
> Mark L. Hammond   [KC4EBR]

Oops, my mistake was to only include the asm files that I had modified in some way. G3RUH.ASM has "include" statements for two other files that contain filter coefficients. They are filtr.asm and filtx.asm. I originally got them from Johan Forrer's (KC7WW) EVM software package, which is also at ftp.tapr.org. If you get any other strange assembler errors assembling other programs, there may be some other missing files.

Like I mentioned in the README file, it's parobably a better idea to get and try Johan's package first, and once you can at least cmopile and execute some of the programs in his package, then give my stuff a try.

I will add any missing files that I find out about to the package, and re-pload it sometime soon.

Doug
N1OWU

---

3. Re: [DSP:316] Assembler Syntax

```
From: dbraun@ichips.intel.com
Date: Mon, 10 Feb 1997 14:18:01 +0200
To: dsp@tapr.org
Message-ID: <199702101218.AA079737138@dtthp135.jf.intel.com>
Rendered body type: text/plain
```

>   Now I'm wanting to assemble a file, in this case Johan's
>SLOWBPSK.ASM ....using Motorola's ASM56000 assembler, my selected
>syntax is: ASM56000 -a -b -l slowbpsk.asm   when I execute this command,
>the assembler runs but displays many (at least 17 errors), and there is no
>.CLD or .LST file in the directory. I'm running the assembler from a DOS
>prompt. If I run using the syntax   ASM56000 slowbpsk.asm   , the scan makes
>it to the end of the file with no errors displayed, so I suspect I'm doing

>something wrong with the softswitches or output file specification within
>the command.

Leave off the ".asm" from the source file name, e.g.:

asm56000 -a -b -l slowbpsk

I also add the -g (after the -b one) option, but I forget why...

Doug
N1OWU

4. software distribution

From: dona@tridelta.com (Don Adams)
Date: Mon, 10 Feb 1997 08:46:49 -0500 (EST)
To: dsp@tapr.org
Message-ID: <199702101346.IAA00460@sparcy.tridelta.com>
Rendered body type: text/plain

Guys, when I archive software, I put *ALL* the
pieces needed to reproduce it in the archive.
When I come back to it, a month or a year later,
to make modifications, there's a good likelyhood
that my tools have changed and I would have
a hard time trying to get the old tools running right,
if I hadn't put the *total* development system in the
archive.
I think that these packages should run on a cold system.
ie no previous s/w needed to reproduce the code.
If it aggravates the gurus, to have to filter out the redunant
files, who is better qualified, to do this. vs someone trying
to get up to speed and having to find where and what other
files are needed.
Please, disk space is cheap today..... try and be considerate
when transfering ideas to other people.....

over and out........Don wa8qzz

5. Re: [DSP:316] Assembler Syntax

From: forrerj@peak.org (Johan Forrer)
Date: Mon, 10 Feb 1997 08:46:33 -0800
To: dsp@tapr.org
Message-ID: <199702101636.IAA23590@PEAK.ORG>
Rendered body type: text/plain

Hi Jim,

>Hello Group:
>   I'm starting out with the EVM......it tests very nicely with all the
>demos included in the package.
>
>   Now I'm wanting to assemble a file, in this case Johan's
>SLOWBPSK.ASM ....using Motorola's ASM56000 assembler, my selected
>syntax is: ASM56000 -a -b -l slowbpsk.asm   when I execute this command,
>the assembler runs but displays many (at least 17 errors), and there is no
>.CLD or .LST file in the directory. I'm running the assembler from a DOS
>prompt. If I run using the syntax   ASM56000 slowbpsk.asm   , the scan makes
>it to the end of the file with no errors displayed, so I suspect I'm doing
>something wrong with the softswitches or output file specification within
>the command.
>
>   I'm reading the ASM_MAN file that Tim recently posted in his EVM28
>collection......but so far haven't found what I need for this problem. Any
>suggestions would be sincerely appreciated....
>   73   JIM K6OYY   TAPR 502
>
>

A few hints when this kind of thing happens: BTW, your assembly directives
are good.
Always first look at the ".LST" file for the reason. I quickly repeated the
assembly and the reason for the errors is shown in the SLOWBPSK.LST as:

```
--------------------------------------------------------------------------------
15                                 page    132                                 ¦
16                                                                             ¦
**** 18 [slowbpsk.asm 18]: ERROR --- Cannot open include file: leonid (Operand ¦
20
```

To fix this one, make sure you have a copy of LEONID.ASM in the same
directory. If there are further errors, it may be that you do not have the
other "equate" include files; IOEQULC.ASM, INTEQULC.ASM resident in the same
dierectory.

Just be careful now with all the versions of BIOS and LEONID. If you decide
to use Doug's code, always only use his versions of BIOS/LEONID together. If
you use my versions, keep those seperate otherwise there will be further
assembly or runtime errors.

Hope this helps.

Johan

6. Re: [DSP:319] software distribution

From: forrerj@peak.org (Johan Forrer)
Date: Mon, 10 Feb 1997 08:46:35 -0800
To: dsp@tapr.org
Message-ID: <199702101637.IAA23597@PEAK.ORG>
Rendered body type: text/plain

Don,

I think you make a good point, but would you like to volunteer to do this
task for the benefit of all of us? How about it? If you are not - is there
anyone else that want to volunteer for this task? I would be happy to ship
off all my bits and pieces of code to someone that has time to sort out a
way that can build it from a cold start.

If there are no takers, I am afraid either there will be no contributions,
or you would need to do what we all do - accept those contribuitions that
are offered in good faith - work a little harder to make things work; ask
questions, fight the dragon - you will find the rewards will be that much
greater.

73's Johan

>Guys, when I archive software, I put *ALL* the
>pieces needed to reproduce it in the archive.
>When I come back to it, a month or a year later,
>to make modifications, there's a good likelyhood
>that my tools have changed and I would have
>a hard time trying to get the old tools running right,
>if I hadn't put the *total* development system in the
>archive.
>I think that these packages should run on a cold system.
>ie no previous s/w needed to reproduce the code.
>If it aggravates the gurus, to have to filter out the redunant
>files, who is better qualified, to do this. vs someone trying
>to get up to speed and having to find where and what other
>files are needed.
>Please, disk space is cheap today..... try and be considerate
>when transfering ideas to other people.......
>
>over and out........Don wa8qzz
>
>
>

7. Re: software distribution

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Mon, 10 Feb 1997 13:36:11 -0500 (EST)
To: dsp@tapr.org
Message-ID: <l03010d03af24d40f1e1b@[152.38.1.2]>
Rendered body type: text/plain

Guys, *I'll* do it. I'd love to get a starter package together...for me
and the other newbies.

I've already started a text file at home, keeping track of my progress and
details toward EVENTUAL (but certain...ha!) success!

>Don,
>

>I think you make a good point, but would you like to volunteer to do this
>task for the benefit of all of us? How about it? If you are not - is there
>anyone else that want to volunteer for this task? I would be happy to ship
>off all my bits and pieces of code to someone that has time to sort out a
>way that can build it from a cold start.
>
>If there are no takers, I am afraid either there will be no contributions,
>or you would need to do what we all do - accept those contribuitions that
>are offered in good faith - work a little harder to make things work; ask
>questions, fight the dragon - you will find the rewards will be that much
>greater.
>
>
>73's Johan
>
>

Mark L. Hammond [KC4EBR]
Campbell University

8. Re: [DSP:321] Re: software distribution

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Mon, 10 Feb 1997 15:29:45 -0600
To: dsp@tapr.org
Message-ID: <v03007814af254378203a@[208.134.134.40]>
Rendered body type: text/plain

Hi Johan.

We looked for a library person for a long time and never found one. Maybe
someone will step forward and work on this aspect of the process.

As you point out, when we had in mind over a year ago would make a great
contribution to what the group does here.

Cheers - Greg

>Don,
>
>I think you make a good point, but would you like to volunteer to do this
>task for the benefit of all of us? How about it? If you are not - is there
>anyone else that want to volunteer for this task? I would be happy to ship
>off all my bits and pieces of code to someone that has time to sort out a
>way that can build it from a cold start.
>
>If there are no takers, I am afraid either there will be no contributions,
>or you would need to do what we all do - accept those contribuitions that
>are offered in good faith - work a little harder to make things work; ask
>questions, fight the dragon - you will find the rewards will be that much
>greater.
>
>
>73's Johan
>
>
>
>>Guys, when I archive software, I put *ALL* the
>>pieces needed to reproduce it in the archive.
>>When I come back to it, a month or a year later,
>>to make modifications, there's a good likelyhood
>>that my tools have changed and I would have
>>a hard time trying to get the old tools running right,
>>if I hadn't put the *total* development system in the
>>archive.
>>I think that these packages should run on a cold system.
>>ie no previous s/w needed to reproduce the code.
>>If it aggravates the gurus, to have to filter out the redunant
>>files, who is better qualified, to do this. vs someone trying
>>to get up to speed and having to find where and what other
>>files are needed.
>>Please, disk space is cheap today..... try and be considerate
>>when transfering ideas to other people.......
>>
>>over and out........Don wa8qzz
>>
>>
>>

```
-----
Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----
```

9. Re: [DSP:323] Re: software distribution

```
From: forrerj@peak.org (Johan Forrer)
Date: Mon, 10 Feb 1997 14:06:30 -0800
To: dsp@tapr.org
Message-ID: <199702102156.NAA02150@PEAK.ORG>
Rendered body type: text/plain
```

Hi Greg,

I think we found someone at last! Thanks Mark.

Johan

```
>Hi Johan.
>
>We looked for a library person for a long time and never found one.  Maybe
>someone will step forward and work on this aspect of the process.
>
>As you point out, when we had in mind over a year ago would make a great
>contribution to what the group does here.
>
>Cheers - Greg
>
>>Don,
>>
>>I think you make a good point, but would you like to volunteer to do this
>>task for the benefit of all of us? How about it? If you are not - is there
>>anyone else that want to volunteer for this task? I would be happy to ship
>>off all my bits and pieces of code to someone that has time to sort out a
>>way that can build it from a cold start.
>>
>>If there are no takers, I am afraid either there will be no contributions,
>>or you would need to do what we all do - accept those contribuitions that
>>are offered in good faith - work a little harder to make things work; ask
>>questions, fight the dragon - you will find the rewards will be that much
>>greater.
>>
>>
>>73's Johan
>>
>>
>>
>>>Guys, when I archive software, I put *ALL* the
>>>pieces needed to reproduce it in the archive.
>>>When I come back to it, a month or a year later,
>>>to make modifications, there's a good likelyhood
>>>that my tools have changed and I would have
>>>a hard time trying to get the old tools running right,
>>>if I hadn't put the *total* development system in the
>>>archive.
>>>I think that these packages should run on a cold system.
>>>ie no previous s/w needed to reproduce the code.
>>>If it aggravates the gurus, to have to filter out the redunant
>>>files, who is better qualified, to do this. vs someone trying
>>>to get up to speed and having to find where and what other
>>>files are needed.
>>>Please, disk space is cheap today..... try and be considerate
>>>when transfering ideas to other people.......
>>>
>>>over and out........Don wa8qzz
>>>
>>>
>>>
>
>
>-----
>Greg Jones, WD5IVD
>Austin, Texas
>wd5ivd@tapr.org
```

>http://www.tapr.org/~wd5ivd
>-----
>
>
>

10. Re: [DSP:320] Re: Assembler Syntax

From: "L. J. Shepherd" <ljs@west.net>
Date: Mon, 10 Feb 1997 22:55:22 -0800 (PST)
To: dsp@tapr.org
Message-ID: <199702110655.WAA26657@acme.sb.west.net>
Rendered body type: text/plain

Hello Johan and Doug: Thanks for the suggestions regarding the ASM56000 assembler. I was able to successfully run it on the SLOWBPSK.ASM file this evening using the program suite Doug has very kindly provided for the TAPR ftp site. I went at it in several steps, first making sure all the files Johan suggested appeared in the active directory. I did establish separate directories for Dougs code and Johans code, as well as the material Tim had provided several days ago.
Next step is to load all the appropriate files and try running SLOWBPSK......I don't have a radio interface built yet, but that's on the close-to-do list now. Thanks again for the suggestions and for taking the time to upload all the EVM files for our use.....they're much appreciated ! 73, JIM K6OYY

At 10:42 AM 2/10/97 -0600, you wrote:
>Hi Jim,
>
>
>>Hello Group: =20
>> I'm starting out with the EVM......it tests very nicely with all=
> the
>>demos included in the package.=20
>>
>> Now I'm wanting to assemble a file, in this case Johan's
>>SLOWBPSK.ASM .....using Motorola's ASM56000 assembler, my selected
>>syntax is: ASM56000 -a -b -l slowbpsk.asm when I execute this command,
>>the assembler runs but displays many (at least 17 errors), and there is no
>>.CLD or .LST file in the directory. I'm running the assembler from a DOS
>>prompt. If I run using the syntax ASM56000 slowbpsk.asm , the scan=
> makes
>>it to the end of the file with no errors displayed, so I suspect I'm doing
>>something wrong with the softswitches or output file specification within
>>the command.=20
>>
>> I'm reading the ASM_MAN file that Tim recently posted in his EVM28
>>collection......but so far haven't found what I need for this problem. Any
>>suggestions would be sincerely appreciated....
>> 73 JIM K6OYY TAPR 502=
>=20
>>
>>
>
>A few hints when this kind of thing happens: BTW, your assembly directives
>are good.
>Always first look at the ".LST" file for the reason. I quickly repeated the
>assembly and the reason for the errors is shown in the SLOWBPSK.LST as:
>
>--=
>---
>15 page 132 =
> =A6
>16 =
> =A6
>**** 18 [slowbpsk.asm 18]: ERROR --- Cannot open include file: leonid=
> (Operand=A6
>20
>--=
>---
>
>To fix this one, make sure you have a copy of LEONID.ASM in the same
>directory. If there are further errors, it may be that you do not have the
>other "equate" include files; IOEQULC.ASM, INTEQULC.ASM resident in the same
>dierectory.
>

>Just be careful now with all the versions of BIOS and LEONID. If you decide
>to use Doug's code, always only use his versions of BIOS/LEONID together. If
>you use my versions, keep those seperate otherwise there will be further
>assembly or runtime errors.
>
>Hope this helps.
>
>Johan
>
>
>

11. Improved version 1.1 of N1OWU EVM software uploaded to ftp.tapr.org

From: dbraun@ichips.intel.com
Date: Tue, 11 Feb 1997 02:12:07 -0800
To: dsp@tapr.org, softlib@tapr.org
Message-ID: <199702111012.AA210135927@dtthp135.jf.intel.com>
Rendered body type: text/plain

Hello,

I have uploaded version 1.1 of my EVM software to /tapr/SIG/dsp/upload
at ftp.tapr.org. The files are n1owu_11.zip and n1owu_11.txt.
When they are moved into the "normal" download area, everybody can access them.

The changes from the previous version are:

1: Some missing .asm files were added to evmcode.zip, so you can assemble
   all the EVM applications in the package.

2: Some issues were clarified in the readme file in evmcode.zip.

3: I added usage instructions to the flshboot.asm program.

4: I added a new package, n1owu_c.zip, that has files to make it easier
   to run G56K C programs under Leonid.

You should throw old the previous verision of n1owu.zip and replace it with
this version.

Happy Processing,

Doug
N1OWU

12. New Files for EVM uploaded

From: Eduardo Jacob <jtpjatae@bicc00.bi.ehu.es>
Date: Tue, 11 Feb 1997 16:12:11 +0100
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970211161211.006a3d8c@bicc00.bi.ehu.es>
Rendered body type: text/plain

I have uploaded evmcode3.zip and EVMPOCSG.ZIP and their .txt files to the
upload directory. They are a decoder for use with CODE3, and a POCSAG
decoder. I think they will soon be moved to the recent_uploads. If you have
any questions, please feel free to send them to Jabi/EA2ARU at
govier02@sarenet.es or at me

        Best regards

        Eduardo/EA2BAJ

Eduardo Jacob - Area de Ingenier'ia Telem'atica
Departamento de Electr'onica y Telecomunicaciones
ETSII y de IT   Tel: +34-(9)4-427 8055
UPV / EHU   Fax: +34-(9)4-441 4041
Alda Urquijo s/n   E-mail: jtpjatae@bi.ehu.es
E-48013 - Bilbao (Spain)   : 100021,2212 Compuserve
Ham: EA2BAJ   VHF PACKET: EA2BAJ @ EA2URV

13. Re: [DSP:327] New Files for EVM uploaded

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Tue, 11 Feb 97 10:41:29 CST
To: dsp@tapr.org
Message-ID: <9702111641.AA21637@aa5df.sps.mot.com>
Rendered body type: text/plain

I have moved Doug's n1owu_11.txt and n1owu_11.zip files into
recent_uploads, as well as Eduardo's files evmcode3.txt, evmcode4.zip,
evmpocsg.txt, and evmpocsg.zip (now that looks like an interesting
hacker file!)

Tim

14. EVM->making great progress!

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Wed, 12 Feb 1997 02:33:43 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970212023343.006965d4@camel.campbell.edu>
Rendered body type: text/plain

Hi gang,

Thanks to Doug's new package, I'm making great progress. Am catching POSAT
even as I type (429.960Mhz early in pass) running the g3ruh modem!

Check this out :-)

```
POSAT1-12>BBSTAT  <UI (Text)>:
Open 12a :
POSAT1-11>STATUS  <UI (Text)>:
B: 321240779
POSAT1>QST  <UI (Text)>:
CRE: File=CR970212 (closed)  Sframes:17337 Iframes:-1243 Survey:194 frame:160
POSAT1-11>PBLIST  <UI (Text)>:
PB:S: Empty.
POSAT1>HITVER  <UI (Text)>:
HIT V2.3 SYNC V1.1
POSAT1>SKED  <UI (Text)>:
Sked 1.3 file:b050 next:Wed Feb 12 09:00:00 1997
POSAT1>STATUS  <UI (Text)>:
Wed Feb 12 02:31:58 1997 Up: 119/13:48 EDAC= 296 F:21776 L:21552 d:0 [0].
POSAT1-11>TLM  <UI (Text)>:
P+3  LÉX+
CA_    <1
_'L    □
4  7qL  Ç        Ç@ >µ
POSAT1-11>PBLIST  <UI (Text)>:
PB:S: Empty.
```

Mark L. Hammond   [KC4EBR]

15. [Fwd: Re: [HFSIG:1976] Re: SSTV demod (LONG).]

From: Robert McGwier <rwmcgwier@worldnet.att.net>
Date: Sun, 09 Feb 1997 07:50:29 -0500
To: dsp@tapr.org
Message-ID: <32FDC815.1FF9@worldnet.att.net>
Rendered body type: text/plain

I sent the following to hfsig. I thought it might be of interest
here.

16. New Files for EVM uploaded

From: Eduardo Jacob <jtpjatae@bicc00.bi.ehu.es>
Date: Wed, 12 Feb 1997 11:19:10 +0100
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970212111910.00699820@bicc00.bi.ehu.es>
Rendered body type: text/plain

>Sounds interesting, but what's "CODE3"?

        I havent' put my hands on it but you can read about it:

        http://homepages.nildram.co.uk/~hoka/

        Eduardo

```
-------------------------------------------------------
Eduardo Jacob - Area de Ingenier'ia Telem'atica
Departamento de Electr'onica y Telecomunicaciones
ETSII y de IT               Tel: +34-(9)4-427 8055
UPV / EHU                   Fax: +34-(9)4-441 4041
Alda Urquijo s/n         E-mail: jtpjatae@bi.ehu.es
```

E-48013 - Bilbao (Spain)   : 100021,2212 Compuserve
Ham: EA2BAJ   VHF PACKET: EA2BAJ @ EA2URV

17. EVM beginners document uploaded

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Thu, 13 Feb 1997 02:39:10 +0000
To: dsp@tapr.org, aa5df@tapr.org
Message-ID: <3.0.1.32.19970213023910.006991dc@camel.campbell.edu>
Rendered body type: text/plain

Hello Tim and others,

I have uploaded a first version of a document that targets the first time DSP56002 EVM user. It is currently in the SIG/dsp/upload area. Tim, could you please move it to the recent_uploads and change the permissions? The file is named evmnote.zip. It contains a Word 7.0 document and a text version of the same file.

I hope this gets at least one other ham online with their new EVM. I was a bit bumfuzzled when I started.

Mark L. Hammond   [KC4EBR]

18. Is any body developing HF modems for EVM ?

From: Eduardo Jacob <jtpjatae@bicc00.bi.ehu.es>
Date: Wed, 12 Feb 1997 18:45:57 +0100
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970212184557.0069e9dc@bicc00.bi.ehu.es>
Rendered body type: text/plain

At the present point, the only software we can miss for the EVM are the more traditional HF modems like RTTY, ASCII, Amtor and Pactor-I. One possibility I have been told by EA2ARU to be actually working is to use Tom Sailer's "HF digital modes terminal software for DOS" for DJ6HP type converters that is attached to a parallel port and reroute ttl level signals from the EVM running a rtty modem to the paralel port of the PC. It works fine but you loose the Spectrum analyzing capability that you get using Texas DSP and is extremely useful for tunning. Perhaps if we know the format and content of the information sent by the Texas to the PC, someone could prepare a modem for the EVM, still we would need another modem for the spectrum analisys and a new terminal that should be able to load one or other modem. Tom?

Best regards

Eduardo/EA2BAJ

19. Amtor/PActor, etc for EVM

From: dbraun@ichips.intel.com
Date: Thu, 13 Feb 1997 01:33:49 -0800
To: jtpjatae@bicc00.bi.ehu.es
Cc: dsp@tapr.org
Message-ID: <199702130933.AA044256429@dtthp135.jf.intel.com>
Rendered body type: text/plain

I agree that it would be really nice to have Amtor and Pactor software for the EVM. (RTTY already exists.).

Can you tell me more about "Tom Sailer's HF digital modes terminal software for DOS", and the DJ6HP convertor?

Several years ago, Johan Forrer wrote a package called "PCTOR" and "PSATOR" that did Amtor and Pactor on the PC, using a simple parellel-port-style modem interface. Possibly this program can be fixed up a bit to work with the EVM. The problem is that the program needs to use seperate interface signals for Tx data, Rx data, and the PTT function. Since the EVM has only a two-line serial port connection, these signals would have to be multiplexed into a proper serial format. Probably it would be better if the interface protocol was changed to let the EVM instead of the PC handle the bit timing.

Maybe Johan can tell us what he thinks of this idea...
(I have never actually run his software, just read the documentation.)

Doug
SV/N1OWU

20. Re: Amtor/PActor, etc for EVM

From: Eduardo Jacob <jtpjatae@bicc00.bi.ehu.es>
Date: Thu, 13 Feb 1997 11:27:09 +0100
To: dbraun@ichips.intel.com
Cc: dsp@tapr.org
Message-ID: <3.0.1.32.19970213112709.006bab18@bicc00.bi.ehu.es>
Rendered body type: text/plain

At 01:33 13/02/97 -0800, you wrote:
>
>I agree that it would be really nice to have Amtor and Pactor software
>for the EVM. (RTTY already exists.).
>
>Can you tell me more about "Tom Sailer's HF digital modes terminal
>software for DOS", and the DJ6HP convertor?

        You can take a look at Tom Sailer's Ham Page at:

        http://www.ife.ee.ethz.ch/~sailer/ham/ham.html

>Several years ago, Johan Forrer wrote a package called "PCTOR"
>and "PSATOR" that did Amtor and Pactor on the PC, using a simple
>parellel-port-style modem interface.

        Yes, but I think these programs never transmitted Pactor.

> Possibly this program can be
>fixed up a bit to work with the EVM. The problem is that the
>program needs to use seperate interface signals for Tx data, Rx
>data, and the PTT function. Since the EVM has only a two-line
>serial port connection, these signals would have to be
>multiplexed into a proper serial format. Probably it would be
>better if the interface protocol was changed to let the EVM
>instead of the PC handle the bit timing.

        I tested it a time ago in RX, it worked.

>Maybe Johan can tell us what he thinks of this idea...
>(I have never actually run his software, just read the documentation.)

        Eduardo/EA2BAJ

---

21. Re: [DSP:334] Amtor/PActor, etc for EVM

From: Robert McGwier <rwmcgwier@worldnet.att.net>
Date: Thu, 13 Feb 1997 08:00:21 -0500
To: dsp@tapr.org
Message-ID: <33031065.60BE@worldnet.att.net>
Rendered body type: text/plain

dbraun@ichips.intel.com wrote:
>
> I agree that it would be really nice to have Amtor and Pactor software
> for the EVM. (RTTY already exists.).
>

The EVM is SOOOOO Fast that we should really do this right. What do I
mean by that. We should "read in the entire burst" and then compute
a posteriori estimation for all of the bits in a burst. This will be
a fairly substantial improvement in performance. This would be a most
informative learning process for most of us in that you get to see the
benefits of using all of the available information in producing
estimates.
I did not have the ticks in the DSP2232 to do this since it was a dual
channel modem but the EVM is a 66 Mhz part and the DSP2232 was a 24 Mhz
part. We have the ticks to do a lot.

Bob

--
****
* Robert W. McGwier, Ph.D. * Mathematician. Hobbies: Computers,
Astronomy*
* 64 Brooktree Rd.   * Amateur Radio, and Golf. Scouts: Advisor
*
* East Windsor, NJ 08520   * Post 995, Troop 5700 Advancement Chair,
*
* (H) 609-443-8963   * Sanhican #2 (Brotherhood), Used to be a
*
* (F) 609-924-3061   * Buffalo (NE-III-120). George Washington

```
*
* (W) 609-279-6240         * Council.  Brownie Troop 193
*
*******************************************************************************
```

22. Re: [DSP:332] EVM beginners document uploaded

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Thu, 13 Feb 97 09:31:33 CST
To: dsp@tapr.org
Message-ID: <9702131531.AA28232@aa5df.sps.mot.com>
Rendered body type: text/plain

> I have uploaded a first version of a document that targets the first time
> DSP56002 EVM user. It is currently in the SIG/dsp/upload area. Tim, could
> you please move it to the recent_uploads and change the permissions? The
> file is named evmnote.zip. It contains a Word 7.0 document and a text
> version of the same file.
> Mark L. Hammond   [KC4EBR]

They've been moved.

Tim

23. Re: [DSP:333] Is any body developing HF modems for EVM ?

From: Kory Hamzeh <kory@avatar.com>
Date: Thu, 13 Feb 1997 08:13:40 -0800 (PST)
To: Eduardo Jacob <jtpjatae@bicc00.bi.ehu.es>
Cc: dsp@tapr.org
Message-ID: <Pine.BSI.3.91.970213081241.17380B-100000@avatar.avatar.com>
Rendered body type: text/plain

Johan's (KC7WW) EVM care packages comes with a RTTY/AMTOR modem that
works pretty well.

Kory

On Thu, 13 Feb 1997, Eduardo Jacob wrote:

> At the present point, the only software we can miss for the EVM are the
> more traditional HF modems like RTTY, ASCII, Amtor and Pactor-I. One
> possibility I have been told by EA2ARU to be actually working is to use Tom
> Sailer's "HF digital modes terminal software for DOS" for DJ6HP type
> converters that is attached to a parallel port and reroute ttl level
> signals from the EVM running a rtty modem to the paralel port of the PC. It
> works fine but you loose the Spectrum analyzing capability that you get
> using Texas DSP and is extremely useful for tunning. Perhaps if we know the
> format and content of the information sent by the Texas to the PC, someone
> could prepare a modem for the EVM, still we would need another modem for
> the spectrum analisys and a new terminal that should be able to load one or
> other modem. Tom?
>
>   Best regards
>
>   Eduardo/EA2BAJ
>
>
>

24. Re: [DSP:334] Amtor/PActor, etc for EVM

From: forrerj@peak.org (Johan Forrer)
Date: Thu, 13 Feb 1997 09:37:14 -0800
To: dsp@tapr.org
Cc: hfsig@tapr.org
Message-ID: <199702131727.JAA22801@PEAK.ORG>
Rendered body type: text/plain

Hi Doug/Eduardo/Bob,

I feel a dilemma when discussing HF digital topics here and suggest to move
the discussion over to HFSIG - all the experts are really tuned in there.
Perhaps we should let this list remain devoted to DSP in general,
satellite/UHF demodulators etc., and give prospective EVM experimentors a
chance to get started. Does that sound reasonable, or what is the list's
opinion? Tim? Greg?

I will cross-post this reply then if folks dont mind.

Just note (rather long) about what I know of the availability of
demod/decoder software for PC's:

Tom Sailer has a very nice (in my opinion) PC-based software package that
allows RTTY/AMTOR/PACTOR-I. Check his homepage, also the HFSIG software
repository. Some folks have indicated that the user interface is overly
simple, but it works - and it is free and available. Tom's program will work
with a number of demodulators like the ST-6 or DJ6HP filter-type; either
handle data in parallel or serial. For Pactor-I with memory ARQ, the
parallel interface is mandatory. This program also supports a number of DSP
modules like the TI DSK or Juergen Hasch's TI320C25 board.

I wrote PCTOR years ago to work with the AN-93, and it has built-in DSP
support for the TI DSK as well. I have used it successfully with the EVM for
AMTOR. The Pactor side of it, called PC-Pactor, is receive only. The PC
soundcard version of the this software is called "PSATOR" and it does the
full complement of AMTOR/Pactor-I with full transmit and receive. The source
code for PSATOR is available in the HFSIG repository as TORLIB1.ZIP. If
anyone has the inclination to look at it or port it for use with the EVM,
feel free to download it. The DSP modem of PSATOR is an adaptive 100/200
baud modem, the theory and operation was published in QEX - source code
included as well.
BTW, I donated a DSP soundcard to Tom for doing a port of his software to
the soundcard platform. Tom did, and that also works quite nicely - also is
in the HFSIG file repository among other places.

HAMCOM3 is also a good possibility for beginners - it uses a rather simple
zero-crossing detector that works OK on good signals, but I am not sure
whether it can handle a "real modem". Does anyone know perhaps?
It would be relatively easy to write a "remodulator"-type of demodulator on
the EVM that can make HAMCOM work much better.

Regarding the workings of my Pactor decoder: that does what Bob is
describing - a postiori evaluation of every bit over the full packet burst.
It uses a 10-times oversampled data stream which seem to make a difference
in extreme cases of multipath distortion. Actually this is done regardless
of knowing whether the data is 100 or 200 baud, or whether the polarity is
positive or inverted. It does, however has substantial CPU load impact.
Unfortunately the code was written to work with the ADSP-2115 DSP on the
soundcard where the master clock timing originates.
I have toyed with porting it to the EVM, but the speed of the EVM's serial
interface is the problem. One ideally need a higher bandwidth "pipe" between
the DSP and the protocol processor to make this work well.

The latter would not be a problem to obtain permission to release the work,
however, one thing at a time.

Hope this helps a bit - let's continue the thread on HFSIG if anyone needs
to talk about HF DSP theory/implementations. We are really in need of people
that are willing to contribute to developing future HF communications
demodulators and protocols. With that I mean helping out with developing
code besides theorizing about it.

Thanks much for your patience and sorry for wasting bandwidth on this list.

73's

Johan

>
>I agree that it would be really nice to have Amtor and Pactor software
>for the EVM. (RTTY already exists.).
>
>Can you tell me more about "Tom Sailer's HF digital modes terminal
>software for DOS", and the DJ6HP convertor?
>
>Several years ago, Johan Forrer wrote a package called "PCTOR"
>and "PSATOR" that did Amtor and Pactor on the PC, using a simple
>parellel-port-style modem interface. Possibly this program can be
>fixed up a bit to work with the EVM. The problem is that the
>program needs to use seperate interface signals for Tx data, Rx
>data, and the PTT function. Since the EVM has only a two-line
>serial port connection, these signals would have to be
>multiplexed into a proper serial format. Probably it would be
>better if the interface protocol was changed to let the EVM

>instead of the PC handle the bit timing.
>
>Maybe Johan can tell us what he thinks of this idea...
>(I have never actually run his software, just read the documentation.)
>
>Doug
>SV/N1OWU
>
>

25. Re: Motorola 56002 EVM support? (PACTOR)

From: N0AOT@aol.com
Date: Thu, 13 Feb 1997 12:49:53 -0500 (EST)
To: DSP@tapr.org
Message-ID: <970213124953_-1609079636@emout08.mail.aol.com>
Rendered body type: text/plain

Hi All--

Since the topic came up, I thought this might be of interest to the group:

In a message dated 97-02-05 09:48:00 EST, you write:

> Hi Bob
>
> > The HF terminal software you wrote for the DSK is so neat, is there
any
> > chance you might adapt to the EVM?

> I'm not planning this... it would currently require too much
> effort and besides, I would first have to repair my HF antenna
> and transceiver :-)
>
> 73s
> Tom
>
>

26. Re: [DSP:340] Re: Motorola 56002 EVM support? (PACTOR)

From: George Cserenyi <zsolt@direct.ca>
Date: Thu, 13 Feb 1997 11:54:34 -0800 (PST)
To: N0AOT@aol.com
Cc: dsp@tapr.org
Message-ID: <Pine.LNX.3.95.970213115013.17227A-100000@cirmos.ci.ca>
Rendered body type: text/plain

Hi,
        who is Tom? who is Bob? I thought "Tom" said:
"I'm not planning this..." so what is the interesting part?
Am I missing something? Please fill in the gaps, whoever u are.
73,
George
ve7ciz

On Thu, 13 Feb 1997 N0AOT@aol.com wrote:

> Hi All--
>
> Since the topic came up, I thought this might be of interest to the group:
>
>
> In a message dated 97-02-05 09:48:00 EST, you write:
>
> > Hi Bob
> >
> > > The HF terminal software you wrote for the DSK is so neat, is there
> any
> > > chance you might adapt to the EVM?
>
> > I'm not planning this... it would currently require too much
> > effort and besides, I would first have to repair my HF antenna
> > and transceiver :-)
> >
> > 73s
> > Tom
> >
> >

>
>

27. Kertesy: A real-time event driven microkernel for ADSP-21XX

From: Eduardo Jacob <jtpjatae@bicc00.bi.ehu.es>
Date: Fri, 14 Feb 1997 15:58:07 +0100
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970214155807.0069c238@bicc00.bi.ehu.es>
Rendered body type: text/plain

I have just read in DDJ an article with the title: "Kertesy: A real-time
event driven microkernel for ADSP-21XX". Perhaps there are interested
minds. Johan?

The article is available in March's DDJ with #263
The code is available at

ftp://ftp.mv.com/pub/ddj/1997/1997.03/kertesy.zip

I havent't verified the quality of it. I have a doubt perhaps about the
suitability of an event driven system of scheduling in communication systems.

Eduardo Jacob - EA2BAJ
VHF PACKET: EA2BAJ @ EA2URV

28. Re: [DSP:342] Kertesy: A real-time event driven microkernel for ADSP-21XX

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 14 Feb 1997 08:56:30 -0800
To: dsp@tapr.org
Message-ID: <199702141646.IAA21500@PEAK.ORG>
Rendered body type: text/plain

Eduardo,

>I have just read in DDJ an article with the title: "Kertesy: A real-time
>event driven microkernel for ADSP-21XX". Perhaps there are interested
>minds. Johan?
>
>The article is available in March's DDJ with #263
>The code is available at
>
>ftp://ftp.mv.com/pub/ddj/1997/1997.03/kertesy.zip
>
>I havent't verified the quality of it. I have a doubt perhaps about the
>suitability of an event driven system of scheduling in communication systems.
>---
>Eduardo Jacob - EA2BAJ
>VHF PACKET: EA2BAJ @ EA2URV
>
>

Yes, thanks for pointing that out. Being an ADSP-21xx user, I spotted the
article, read it and started looking for the code, but have not found it to
date. Have you seen the code yet. It was not yet on the download site.

Not speaking as an expert, my experience with regular m-ary FSK demods for
example, have not shown a need for anything that sophisticated. When,
however, you are dealing with a DSP application where you are implementing
both real time sampling/demodulation, phase/clock extraction and other
things like HDLC for example, it makes a lot of sense to use some form of
micro kernel that allows task scheduling as a means for managing multiple
threads.

Context switching in such a DSP environment then becomes rather crucial, and
that often is where the DSP architecture can make a difference. The
ADSP-21xx, as used for the basis of that article for example, has an
"alternate" register set. This allow one to switch to another activity
without saving the active register set, simply by writing a bit in a control
register, i.e., this happens in one instruction tick. Unfortunatly it is
only one level deep so does not really help much when dealing with
re-entrant code. I guess that perhaps is one reason why the author(s)favored
that particular architecture.

Do you have any interests in using Kertesy for HF modem work?

73, Johan.

29. 56002 EVM and EEPROM questions

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Fri, 14 Feb 1997 20:28:18 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970214202818.006aff78@camel.campbell.edu>
Rendered body type: text/plain

Hello all,

I am working on loading up the EEPROM for the 56002 EVM unit. I am using
N1OWU's code (his bios2.asm, leonids.asm, flshboot.asm).

In flshboot.asm, it says:
```
----------------------------
; You must adjust these two values, based on how big your application is !!!
; All these sizes must be a multiple of 64 ($40) !!!
; Note: We always initialize all the internal memory, since it's so small...

WORDS_PX_EXT    equ     $0400   ;Amount of external P/X memory to save.
WORDS_Y_EXT     equ     $0400   ;Amount of external Y memory to save.
--------------------------
```

My problem may be basic to many of you, I'm sure. However, converting DEC
and HEX to me means pushing the right button on the calculator...

Anyhow, I want to load the G3RUH modem as my default application in the
EEPROM. After assembly, the g3ruh.cld file is 10,266 bytes.

In the two lines of code above, if I've down the conversion correctly,
$0400 hex is 1024. Would that be 1,024 bytes? So, do I use the following
calculation:

10,266 rounds to 10,304 (the nearest multiple of 64 x 161)

Convert 10,304 DEC to $2840 HEX (calculator button push)

So do I enter $2840 into both lines above in place of $0400?

Or how do I correctly calculate the number that needs to go here, based on
the known size of the corresponding .cld file? What's the BIGGEST number
that these values can be?

Thanks in advance....

Mark L. Hammond   [KC4EBR]

30. Re: Kertesy: A real-time event driven microkernel for ADSP-21XX

From: Eduardo Jacob <edu@kender.es>
Date: Fri, 14 Feb 1997 23:55:15 -0100
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970214235515.0068b7ac@kender.es>
Rendered body type: text/plain

>Yes, thanks for pointing that out. Being an ADSP-21xx user, I spotted the
>article, read it and started looking for the code, but have not found it to
>date. Have you seen the code yet. It was not yet on the download site.

I have got from here

ftp://ftp.mv.com/pub/ddj/1997/1997.03/kertesy.zip

>Do you have any interests in using Kertesy for HF modem work?

No, unfortunately I have not the level to do that.. I am just a user of
DSP modems. I have been playing with EVM from sometime, but dealing with
minor modifications or tweaking related almost always with hard and soft on
the PC. I am now studying the TAPR book. Sadly I have too much work and I
have to write my PhD thesis (not on DSP modems, digital signal treatments
or HAM, distributed systemss security instead...)

Eduardo/EA2BAJ

31. Re: Amtor/PActor, etc for EVM

From: Eduardo Jacob <edu@kender.es>
Date: Sat, 15 Feb 1997 08:18:14 -0100
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970215081814.0068ca0c@kender.es>

Rendered body type: text/plain

>I know Juergen does excellent work.
>
>Might be a suggestion to look at the Alefnul LEONID that runs on the EVM. It
>has all the HDLC and KISS code done already and it is the basis for several
>of the modems that are being used; 1200 FSK, 9600 G3RUH, and the multitone
>parallel HF modem that Pawel, SP9VRC wrote for us.

Yes it would be fine, to have only a BIOS.

>However, I am certain Jurgen knows this already, perhaps he is planning on
>doing something new and innovative? Sounds interesting.

He is developing a driver for the EVM for the Flexnet system. A packet network in use in Europe. An alpha is available at his home page along with several other things.

http://ourworld.compuserve.com/homepages/dg1scr/home.htm

Eduardo/EA2BAJ

32. DSPX232.ZIP

From: Robert McGwier <rwmcgwier@worldnet.att.net>
Date: Sat, 15 Feb 1997 08:17:41 -0500
To: dsp@tapr.org, hfsig@tapr.org
Message-ID: <3305B775.B5C@worldnet.att.net>
Rendered body type: text/plain

I have uploaded DSPx232.ZIP. It contains the bootloader files, and utilities written by Andy Madsen, formally of AEA, to make the ROM's for the DSPX232. This zip does not contain any modems. That will happen
when I return from my trip. There are things I would like to make major improvements in and will do so. The files do contain the programming model for the DSP side of the DSP2232. The modems I know that I can make major improvements in will be primarily the HF modems. I need to replace the guts of them without changing their external functionality. This will allow you to qload these modems to RAM. The RAM in the DSPX232
is battery backed so it will retain these modems 'til the next time you have to do a reset.

The development of these modems will be done on the EVM. I am extremely impressed with the unit. Pat Spatafore tried to sell me on using the Crystal Semiconductors Codec's when we first started. The only reason I did not do it is you could not set different rates in the two channels and that defeated the versatility we wanted for the DSP2232. Since we never UTILIZED the DSP2232's full versatility, . . .

The file is in dsp/upload until someone moves it. I am really sorry that
this is happening two months later than I had hoped it would. Things are
going well at work for me and this has forced me to do dog and ponies and
travel. For that, I am not sorry.

Bob
--

****
* Robert W. McGwier, Ph.D. * Mathematician. Hobbies: Computers, Astronomy*
* 64 Brooktree Rd. * Amateur Radio, and Golf. Scouts: Advisor
*
* East Windsor, NJ 08520 * Post 995, Troop 5700 Advancement Chair,
*
* (H) 609-443-8963 * Sanhican #2 (Brotherhood), Used to be a
*
* (F) 609-924-3061 * Buffalo (NE-III-120). George Washington
*
* (W) 609-279-6240 * Council. Brownie Troop 193
*
****

33. Re: [DSP:344] 56002 EVM and EEPROM questions

From: dbraun@ichips.intel.com
Date: Sat, 15 Feb 1997 18:25:55 +0200
To: dsp@tapr.org

```
>My problem may be basic to many of you, I'm sure.  However, converting DEC
>and HEX to me means pushing the right button on the calculator...
>
>Anyhow, I want to load the G3RUH modem as my default application in the
>EEPROM.  After assembly, the g3ruh.cld file is 10,266 bytes.
>
>In the two lines of code above, if I've down the conversion correctly,
>$0400 hex is 1024.  Would that be 1,024 bytes?  So, do I use the following
>calculation:
>
>10,266 rounds to 10,304 (the nearest multiple of 64 x 161)
>
>Convert 10,304 DEC to $2840 HEX (calculator button push)
>
>So do I enter $2840 into both lines above in place of $0400?
>
>Or how do I correctly calculate the number that needs to go here, based on
>the known size of the corresponding .cld file?  What's the BIGGEST number
>that these values can be?
>
>Thanks in advance....
>
>Mark L. Hammond   [KC4EBR]


Let me give everyone some hints about this issue:

1: I have not actully tested burning most of the programs into the
   EEPROM as default applications.  Some may have memory usage models
   that need to be fixed up first.  A common problem is for the external
   memory (P/X or Y) to start at $2000 instead of $0200.  The program
   will work fine if downloaded (by dl.exe or the debugger), but it
   cannot be properly put into the EEPROM unless you make some more changes
   to flshboot.asm to save AND restore the correct mmeory areas.  It
   is much easier to change the application program, in my opinion.

2: The size of the .cld or .lod file is irrelevant.  To get the best picture
   of a program's memory usage, make sure the assembly language code has the
   statment:

   opt     mu

   near the top.  This tells the assembler to generate a memory usage
   map in the .lst file.  This map lists all the code blocks, variables,
   and buffers your program has.

3: You should distinguish between initialized and uninitialized memory.
   Things like the codec buffer have no initial data values, so they
   do not have to be saved in the EEPROM.

4: The g3ruh.asm program does not have any initialized external P, X,
   or Y memory.  Thus, the flshboot.asm program will work with g3ruh.asm
   as-is.

5: The maximum amount of P/X and Y memory that can be saved in the EEPROM
   is limited by the size of the EEPROM, of course.  Flshboot.asm
   has these lines, which should tell you if you are trying to save too
   much:

   if BLOCKS_PX_EXT+BLOCKS_Y_EXT>$0055
     fail 'External PX or Y memory too big to fit in EPROM'
   endif

6: Most of the existing EVM programs are actually pretty small, and use
   only a fraction of the EVM's memory.  The most complex program,
   newqpsk.asm, has only 1358 words of code.


7: Actually, there is one little problem in g3ruh.asm.  These lines:

    org     p:kiss_pars+4
    dc      -1                                  ; full-duplex at start-up

   effectively patch a data word into the BIOS's KISS parameter table,
   located at P:$3800.  Since the BIOS is also being saved in the EEPROM,
   this is OK, but if you download a different modem program, the BIOS's
   KISS parameter table will still be initialized with this data value
```

specific to the G3RUH modem. The fix is for G3RUH.ASM to set the
KISS parameter at run time instead of load time, like this:

```
move    #-1,a1
move    a1,p:kiss_pars+4
```

8: If you write your own application, you have to be careful to design
the memory layout correctly. The unusual architecture of the 56002,
plus the simple hardware of the EVM, definitely make this non-trivial!

Doug
SV/N1OWU

34. Re: [DSP:339] Re: Amtor/PActor, etc for EVM

From: dbraun@ichips.intel.com
Date: Sun, 16 Feb 1997 20:21:56 +0200
To: dsp@tapr.org
Message-ID: <199702171132.AA181069133@dtthp135.jf.intel.com>
Rendered body type: text/plain

KC7WW writes:

>I feel a dilemma when discussing HF digital topics here and suggest to move
>the discussion over to HFSIG - all the experts are really tuned in there.
>Perhaps we should let this list remain devoted to DSP in general,
>satellite/UHF demodulators etc., and give prospective EVM experimentors a
>chance to get started. Does that sound reasonable, or what is the list's
>opinion? Tim? Greg?

Fine with me, except that one facet of the discussion is of more
general interest, i.e. the EVM-host communication issue.

Like Johan said, the EVM SCI serial port is not always the best
interface between the EVM and the host computer (NOT necessarily
a PC!). But it is a good idea to try to make it work for any
software system runs on both the host and the EVM. At least you
can be sure that all the other EVM owners can run your stuff.

You can usually run the serial port at a fast speed, like 57600
baud. Then you are getting about 5000 bytes/second of EVM-host
communication bandwidth.

Some programs, like PCTOR and the HB9JNX (Tom Sailer's) program,
want to use more of the RS-232 signals, like DCD, RTS, and DTR.
If you added these signals to the EVM serial port, it would let
you run more types of software more easily, but the disadvantages
are:

1: You would use up 2 or 3 more of the precious Port B signal lines.
2: You would have to add another RS-232 level converter chip somewhere.

But if people write more and more EVM applications that want the
extra RS-232 signals, it would be a good idea to at least
standardize on the Port B bits that are used, so the user
community doesn't have to do any more software patching (or
soldering!) than necessary...

If I find the time, I will look at the TORLIB code and see if I
can get any of it to work using the EVM with only the standard
2-signal SCI port.

Does anyone know if Tom Sailer released any source code to his
stuff? Also, how does one subscribe to the HF SIG mailing list?

Bye for now,

Doug
N1OWU

35. AEA DSP2232

From: Tim Baggett <tim@acca.nmsu.edu>
Date: Mon, 17 Feb 1997 20:08:12 -0700 (MST)
To: dsp@tapr.org
Message-ID: <Pine.SUN.3.95.970217200646.8526A-100000@acca>
Rendered body type: text/plain

Hi All,

I moved Bob's upload of the AEA DSP2232 realtime kernel (I think that is
what it was) over to the SIG/dsp/recent_uploads area. The filename is
dspx232.zip.

Sorry about the delay. Been out of town (still out actually)

73,
Tim

36. Re: [DSP:350] AEA DSP2232

From: George Cserenyi <zsolt@direct.ca>
Date: Tue, 18 Feb 1997 20:56:43 -0800 (PST)
To: Tim Baggett <tim@acca.nmsu.edu>
Cc: dsp@tapr.org
Message-ID: <Pine.LNX.3.95.970218201822.12810B-100000@cirmos.ci.ca>
Rendered body type: text/plain

Huh?
        Is there an AEA DSP2232 implementation avaible for the
        56kEVM? How did I miss that?
George

On Mon, 17 Feb 1997, Tim Baggett wrote:

>
> Hi All,
>
> I moved Bob's upload of the AEA DSP2232 realtime kernel (I think that is
> what it was) over to the SIG/dsp/recent_uploads area. The filename is
> dspx232.zip.
>
> Sorry about the delay. Been out of town (still out actually)
>
> 73,
> Tim
>
>
>

37. Re: [DSP:351] Re: AEA DSP2232

From: Tim Baggett <tim@dsp.sps.mot.com>
Date: Tue, 18 Feb 1997 22:49:51 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.SUN.3.91.970218224849.14407B-100000@aa5df>
Rendered body type: text/plain

On Tue, 18 Feb 1997, George Cserenyi wrote:

> Huh?
>   Is there an AEA DSP2232 implementation avaible for the
>   56kEVM? How did I miss that?
> George

I don't know about an implementation on the EVM56K, but the DSP2232 was
based on the 56001. Converting the code shouldn't be too bad (famous last
words...)

Tim

38. Re: [DSP:352] Re: AEA DSP2232

From: George Cserenyi <zsolt@direct.ca>
Date: Tue, 18 Feb 1997 21:59:52 -0800 (PST)
To: Tim Baggett <tim@dsp.sps.mot.com>
Cc: dsp@tapr.org
Message-ID: <Pine.LNX.3.95.970218215806.13543A-100000@cirmos.ci.ca>
Rendered body type: text/plain

Yes, one would think,
that if the 56001 could do it the 56002 can do it better/easier.
Anybody knows what extra hardware would be needed?
George

On Tue, 18 Feb 1997, Tim Baggett wrote:

>
>
> On Tue, 18 Feb 1997, George Cserenyi wrote:

>
> > Huh?
> >   Is there an AEA DSP2232 implementation avaible for the
> >   56kEVM? How did I miss that?
> > George
>
> I don't know about an implementation on the EVM56K, but the DSP2232 was
> based on the 56001. Converting the code shouldn't be too bad (famous last
> words...)
>
> Tim
>
>

39. My first try with EVM

From: Mark <lmweber@pioneerplanet.infi.net>
Date: Wed, 19 Feb 1997 05:32:30 -0600
To: dsp@tapr.org
Message-ID: <330AE4CE.3D63@pioneerplanet.infi.net>
Rendered body type: text/plain

I have recently got my Motorola EVM working and wrote a first program.
This program adds and subtracts the stereo channels of a music program
fed into it. The result is one channel that sounds normal (the sum
channel) and one channel that is largely missing the soloist (the
difference channel).

I put the program on

http://www.geocities.com/CapeCanaveral/6125/DSP.htm

Try is if you like. This is fun!

Mark
N0UHX

40. EVM clock 40 or 68 MHz?

From: bsmeds@esoc.esa.de
Date: Wed, 19 Feb 1997 12:33:56 +0200
To: dsp@tapr.org
Message-ID: <C1256443.003DFCA4.00@esocmail1.esoc.esa.de>
Rendered body type: text/plain

Hello
Thanks to the EVMNOTES from Mark Hammond I got started with my EVM package.
I started with the application programs from Doug Braun and spent a
week-end looking at the code. Everything works fine to now assembling the
fsk1200 and the bios2. I am still not ready with the radio interface and
the EEPROM is on order.
My question is however, my EVM has a 40 MHz chip and the leonid.asm 1.4
1997/01/14 shows a line
xtal equ 68000000. I assume I am now running 68 MHz clock on my chip
specified for 40 MHz.

Is this OK or shall I modify the leonid.asm to select 40 MHz?
If I change, will the programs run correctly? I have seen some delay loops
with NOP instructions.

Boris Smeds
DJ0EX, SM0GJ
 BSmeds@esoc.esa.de

41. Source for EEPROM in Germany.

From: bsmeds@esoc.esa.de
Date: Wed, 19 Feb 1997 14:49:33 +0200
To: dsp@tapr.org
Message-ID: <C1256443.004AAB76.00@esocmail1.esoc.esa.de>
Rendered body type: text/plain

Hello Group,
If you need it,
I have found a source in Germany for the EVM card EEPROM.
AT29C256-120PC   priced at DM   16.90 . Postage delivery C.O.D. in
Germany DM 9.90
I do not know if they accept export delivery.
Look at http://www.segor.de
FAX +49 30 345 39 68
Segor-electronics

Kaiserin-Augusta-Allee 94
10589 Berlin

Boris
DJ0EX, SM0GJ

42. Re: [DSP:355] EVM clock 40 or 68 MHz?

From: dbraun@ichips.intel.com
Date: Wed, 19 Feb 1997 10:52:10 -0800
To: dsp@tapr.org
Cc: BSmeds@esoc.esa.de
Message-ID: <199702191852.AA007308329@dtthp135.jf.intel.com>
Rendered body type: text/plain

Are there late-modem EVMs with 40 MHz chips? That would be strange!

If you change the Leonid "xtal" value and reassemble everything,
there should be no problem. But check the flshboot program; that
one may have some dependencies..

By the way, most NOP instructions in EVM programs are there not to
give a time delay, but to seperate instructions that
cannot legally be next to one another.

Doug
SV/N1OWU

43. Re: [DSP:357] Re: EVM clock 40 or 68 MHz?

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Wed, 19 Feb 1997 14:36:17 -0500 (EST)
To: dsp@tapr.org
Message-ID: <l03020900af30be498f6f@[152.38.1.2]>
Rendered body type: text/plain

Obviously there were several batches, or runs, of DSP56002 EVM boards
(independant of the REV 2.X marking).

I am aware of a couple permutations:

1) 40MHz with the Host DB9 connector (first shipment from TAPR)

2) 66MHz with the Host DB9 connector (?)

3) 66MHz without the Host DB9 connector (second shipment from TAPR)--[mine]

I guess that is why when we do documentation for things, we should address
some of these points. One concern I have is the shorting jumpers and
whether or not every board comes jumpered the same way. Just a
thought....maybe Tim can fill us in some more?

>Are there late-modem EVMs with 40 MHz chips? That would be strange!
>
>If you change the Leonid "xtal" value and reassemble everything,
>there should be no problem. But check the flshboot program; that
>one may have some dependencies..
>
>By the way, most NOP instructions in EVM programs are there not to
>give a time delay, but to seperate instructions that
>cannot legally be next to one another.
>
>Doug
>SV/N1OWU

Mark L. Hammond [KC4EBR]
Campbell University

44. Re: [DSP:358] Re: EVM clock 40 or 68 MHz?

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Wed, 19 Feb 97 14:36:24 CST
To: dsp@tapr.org
Message-ID: <9702192036.AA16519@aa5df.sps.mot.com>
Rendered body type: text/plain

> Obviously there were several batches, or runs, of DSP56002 EVM boards
> (independant of the REV 2.X marking).
>
> I am aware of a couple permutations:

>
> 1) 40MHz with the Host DB9 connector (first shipment from TAPR)
>
> 2) 66MHz with the Host DB9 connector (?)
>
> 3) 66MHz without the Host DB9 connector (second shipment from TAPR)--[mine]
>
> I guess that is why when we do documentation for things, we should address
> some of these points. One concern I have is the shorting jumpers and
> whether or not every board comes jumpered the same way. Just a
> thought....maybe Tim can fill us in some more?

The jumpers should all ship the same.

The EVM's usually do not ship with the second DB9 connector, unless a
they are really needed (most users don't use the host DB9 anyhow). The
40 MHz board are the older runs. The newer boards are identical, except
the DSP is qualified to operate at 66MHz.

Operation of the 40 MHz parts at 66 MHz will probably work, but beware
that the operation may NOT be reliable. If you encounter something very
odd happening, make sure you are operating within spec.

The Rev 2.1 boards had a different powers supply filter cap (smaller),
and a slightly different layout. Not many changes there either. They
should work fine for all we are doing as well.

Tim

45. S.O.S.

From: antonio fernandez <afernand@compuserve.com>
Date: Wed, 19 Feb 1997 15:58:47 -0500
To: DSP-SIG <dsp@tapr.org>
Message-ID: <199702191559_MC2-1179-65AF@compuserve.com>
Rendered body type: text/plain

Hi dear colleagues,
It seems I am not very lucky with EVMs, after having an almost fatal
failure in
my first and loved EVM56002 I ordered one from the TAPR group purchase as
a replacement. After a very long wait I got it last week.
I unpacked and tested it with evmtest, got the PASS message and everything
was OK so I decided to put it in the box with the radio interface I already
had from
the previos EVM, before that I soldered a socket for the flash ROM and a
DB-9
conector for the host port (it did not came with it already fitted to my
surprise).
Then I tried to load BIOS.CLD and I couldn't. The program halted and got
the
following message: "Memory write failure P:1400: W-002580, R-002500", since

I got this message nothing worked again :-(I can load the debugger from
time
to time, I get the message "couldn't initilize evm", when I succesfully
load the
debugger I get the memory failure message.
Any help would very very wellcome, by the way what is Dorothy's e-mail
addrress
at TAPR office? I wonder if I am eligible for a warranty replacement after
adding
the socket and the 'missing' DB-9 connector in the host port.
Best 73 de Toni, ea4le
e-mail: ea4le@amsat.org

46. Re: [DSP:355] EVM clock 40 or 68 MHz?

From: forrerj@peak.org (Johan Forrer)
Date: Wed, 19 Feb 1997 16:27:06 -0800
To: dsp@tapr.org
Message-ID: <199702200016.QAA27028@PEAK.ORG>
Rendered body type: text/plain

Boris,

Congratulations!

The EVM clock speed should be set for 40 MHz for the TAPR EVM. This is the
Motorola specifications that are guaranteed to work. However, as you have
seen, those specifications are very conservative and you can push the clock

higher, but beware when it starts showing strange behaviour. I have pushed a
66 MHz EVM to 80 MHz and it still worked OK.

Generally speaking, the 40 MHz EVM will run everything that is available on
the TAPR library. This is because a lot of the code was written for the DSP
Card 4 which is only a 27 MHz DSP.

Experiment a bit and have fun.

73, till middle March (I'll be gone on an overseas trip).

Johan, KC7WW

>
>
>
>
>Hello
>Thanks to the EVMNOTES from Mark Hammond I got started with my EVM package.
>I started with the application programs from Doug Braun and spent a
>week-end looking at the code. Everything works fine to now assembling the
>fsk1200 and the bios2. I am still not ready with the radio interface and
>the EEPROM is on order.
>My question is however, my EVM has a 40 MHz chip and the leonid.asm 1.4
>1997/01/14 shows a line
>xtal equ 68000000. I assume I am now running 68 MHz clock on my chip
>specified for 40 MHz.
>
>Is this OK or shall I modify the leonid.asm to select 40 MHz?
>If I change, will the programs run correctly? I have seen some delay loops
>with NOP instructions.
>
>Boris Smeds
>DJ0EX, SM0GJ
> BSmeds@esoc.esa.de
>
>
>

47. SLOWBPSK on the EVM: Update

From: "L. J. Shepherd" <ljs@west.net>
Date: Wed, 19 Feb 1997 23:09:42 -0800 (PST)
To: dsp@tapr.org
Message-ID: <199702200709.XAA29893@acme.sb.west.net>
Rendered body type: text/plain

Hello Group: I've been getting started with the EVM and have successfully
assembled and modified the SLOWBPSK program for use with my own callsign, etc.
This evening I was successful in getting the loopback working using an SCI
port interface speed of 19200 baud. The fixed message text of the repeating
BPSK beacon is nicely printed on my terminal emulator. CW ID mode also works
nicely.

                I tried setting the SendFixedMessage parameter equ 0 in the
interest of trying the keyboard mode, reassembled the modified file,
successfully loaded it, but it does not seem to run or "print" using the
same terminal monitoring setup I used to test the beacon mode. Tried ctrl T
and ctrl R to switch back and forth transmit to receive........but no text
printed via keyboard input in the tx mode (I'm assuming the ^T and ^R mean
ctrl T and ctrl R pursuant to frequent convention). So back to the 'ol
drawing board.

                In any event, the beacon mode is working here, and it would
be a simple matter to interface my hf tx for some transmit tests if anyone
is interested...........suppose I could also receive during the "silent"
beacon interval. Will continue to work on getting the keyboard interface
operational over the next few evenings...........just thought this might be
of interest to others having some fun starting out with their EVM's.
                                73, JIM K6OYY   TAPR 502

48. Re: [DSP:326] Improved version 1.1 of N1OWU EVM software uploaded to ftp.tapr.org

From: dona@tridelta.com (Don Adams)
Date: Fri, 21 Feb 1997 08:46:03 -0500 (EST)
To: dsp@tapr.org
Message-ID: <199702211346.IAA19051@sparcy.tridelta.com>
Rendered body type: text/plain

Hey Doug, I've been looking at PMP. Do U have the original code?
Or know where it is?

>I have uploaded version 1.1 of my EVM software to /tapr/SIG/dsp/upload
>at ftp.tapr.org. The files are n1owu_11.zip and n1owu_11.txt.

>Doug
>N1OWU
>
>

49. PC DSP Software Group Purchase

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Fri, 21 Feb 1997 13:59:13 -0600
To: " TAPR/AMSAT DSP "<dsp@tapr.org>, " DSP-93 Build "<dsp-93@tapr.org>,
"HF SIG list mailing"<hfsig@tapr.org>,
"TAPR-BB list mailing"<tapr-bb@tapr.org>
Message-ID: <v03007808af33aeafafe6@[208.134.134.40]>
Rendered body type: text/plain

This is to let those who were in the PC DSP Software Group purchase know
that the software has arrived and is being shipped.

Cheers - Greg

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
---

50. [DSP:364] PC DSP Software Group Purchase

From: kl7ev@actis.polarnet.com
Date: 21 Feb 1997 12:45:10 AST
To: dsp@tapr.org
Message-ID: <199702212143.MAA08572@icefog.polarnet.com>
Rendered body type: text/plain

DS>This is to let those who were in the PC DSP Software Group purchase know
DS>that the software has arrived and is being shipped.

DS>Cheers - Greg

Is this Group Software Purchase related to the EVM Group purchase or did
I miss something. I was never aware of a specific group software
purchase and would like to know if I missed out on something to go with
my EVM(s)?

- Greg -
---
kl7ev
---

51. Re: [DSP:365] PC DSP Software Group Purchase

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Fri, 21 Feb 1997 16:02:34 -0600
To: dsp@tapr.org
Message-ID: <v03007814af33cbc687ac@[208.134.134.40]>
Rendered body type: text/plain

This was first started last June and has been in every PSR since and on the
Web pages. We finally got the 20 needed end of last month.

Cheers -Greg

>DS>This is to let those who were in the PC DSP Software Group purchase know
>DS>that the software has arrived and is being shipped.
>
>DS>Cheers - Greg
>
>Is this Group Software Purchase related to the EVM Group purchase or did
>I miss something. I was never aware of a specific group software
>purchase and would like to know if I missed out on something to go with
>my EVM(s)?
>
>   - Greg -
>---
>kl7ev

>---

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

52. [DSP:366] Re: PC DSP Software Group Purchase

From: kl7ev@actis.polarnet.com
Date: 21 Feb 1997 18:43:36 AST
To: dsp@tapr.org
Message-ID: <199702220342.SAA21451@icefog.polarnet.com>
Rendered body type: text/plain

Well, I still don't know what the Software Group purchase is/was for. I
take it I don't need it, or do I?!

       - Greg -

DS>This was first started last June and has been in every PSR since and on the
DS>Web pages. We finally got the 20 needed end of last month.

DS>Cheers -Greg

DS>>DS>This is to let those who were in the PC DSP Software Group purchase know
DS>>DS>that the software has arrived and is being shipped.
DS>>
DS>>DS>Cheers - Greg
DS>>
DS>>Is this Group Software Purchase related to the EVM Group purchase or did
DS>>I miss something. I was never aware of a specific group software
DS>>purchase and would like to know if I missed out on something to go with
DS>>my EVM(s)?
DS>>
       - Greg -
---
kl7ev
---

53. Re: [DSP:367] Re: PC DSP Software Group Purchase

From: Lyle Johnson <lylej@azstarnet.com>
Date: Fri, 21 Feb 1997 21:06:45 -0700
To: dsp@tapr.org
Message-ID: <3.0.32.19970221210448.00720a64@pop.azstarnet.com>
Rendered body type: text/plain

Greg,

As Greg pointed out, it was pretty widely publicized -- too bad you missed
it. I missed the EVM purchase, having bought a unit from my local Motorola
distributor for $149 the DAY before the EVM group purchase was announced :-(

Check out "http://www.dspsolutions.com" for a description and demoware
download of PC-DSP and PC-SIM. I signed up for it because I remembered Jon
Bloom had used the "student version" of it to do some filter design work
for the original TAPR/AMSAT DSP-1 project back in the late '80s. The group
purchase was $220 rather than the normal price (I think the savings was
around 15%) so if you're intrested in the package, it isn't that big a step
to buy it at "retail."

Now, if I can only find the time to load it and start learning things!
But, I have to dive back into getting RUDAK running (both CPUs are now
talking to me :-)

Cheers,

Lyle

54. Re: [DSP:367] Re: PC DSP Software Group Purchase

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Sat, 22 Feb 1997 12:46:33 -0600
To: dsp@tapr.org
Message-ID: <v03007805af34ed556810@[208.134.134.40]>
Rendered body type: text/plain

http://www.tapr.org/tapr/html/dsp93.pcdsp.html

Greg

>Well, I still don't know what the Software Group purchase is/was for. I
>take it I don't need it, or do I?!
>
>   - Greg -
>
>DS>This was first started last June and has been in every PSR since and on the
>DS>Web pages. We finally got the 20 needed end of last month.
>
>DS>Cheers -Greg
>
>DS>>DS>This is to let those who were in the PC DSP Software Group purchase
>know
>DS>>DS>that the software has arrived and is being shipped.
>DS>>
>DS>>DS>Cheers - Greg
>DS>>
>DS>>Is this Group Software Purchase related to the EVM Group purchase or did
>DS>>I miss something. I was never aware of a specific group software
>DS>>purchase and would like to know if I missed out on something to go with
>DS>>my EVM(s)?
>DS>>
>   - Greg -
>---
>kl7ev
>---

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

55. Re: [DSP:362] SLOWBPSK on the EVM: Update

From: dbraun@ichips.intel.com
Date: Fri, 21 Feb 1997 23:44:43 +0200
To: dsp@tapr.org
Message-ID: <199702222038.AA166173921@dtthp135.jf.intel.com>
Rendered body type: text/plain

K6OYY says:

>   I tried setting the SendFixedMessage parameter equ 0 in the
>interest of trying the keyboard mode, reassembled the modified file,
>successfully loaded it, but it does not seem to run or "print" using the
>same terminal monitoring setup I used to test the beacon mode. Tried ctrl T
>and ctrl R to switch back and forth transmit to receive.....but no text
>printed via keyboard input in the tx mode (I'm assuming the ^T and ^R mean
>ctrl T and ctrl R pursuant to frequent convention). So back to the 'ol
>drawing board.

It works fine for me with the code I uploaded. But does not echo
the TX data, so the only sign that you are transmitting is that
the transmitter keys up. Or maybe you have a RS-232 wiring error,
or possibly something like non-zero bit-8 parity in the TX data
characters is keeping the program from seeing your input.

If you have no radio at all hooked up to the EVM, the program may
appear to be operating in half-duplex mode, i.e. stuff you type
when transmitting (or that the beacon mode sends) is echoed back.
But it's not deliberately doing this. What happens is that there
is maybe -60 dB leakage between the analog input and output
signals of the CODEC. Thus, a tiny bit of the TX audio gets fed
into the input, and is demodulated and sent to the host computer.
(This is a full-duplex modem). It's interesting that the
demodulator can still demodulate an input that is 60 dB below the
"correct" level! Of course, of you have any noise signal at all
coming in from a radio, the leakage signal will be swamped by it,
and you won't see this effect.

Doug
N1OWU

56. Re: [DSP:370] Re: SLOWBPSK on the EVM: Update

From: "L. J. Shepherd" <ljs@west.net>
Date: Sat, 22 Feb 1997 22:47:18 -0800 (PST)
To: dsp@tapr.org
Message-ID: <199702230647.WAA09287@acme.sb.west.net>
Rendered body type: text/plain

Doug: Thanks for your comments. I had the same hardwired loopback in effect that I had used to monitor the beacon text.....I would not have expected any change in port parameters when switching to the keyboard mode, but I will have another look at the code to see if there are some keyboard-specific tx parameters that I missed. I didn't notice the effect you mentioned regarding input/output codec leakage.....when I removed my hardwired loopback, the echoed beacon text went away, but admittedly I had not set levels in the software, so I may still see what you describe, depending on how much signal my tx wants as input.
Also wanted to express my appreciation for the EVM program suite you kindly uploaded. I haven't tried the "11" versions yet.....my EVM time has been compromised by some minor home remodeling (.....if any remodeling can be "minor" !). Have you done any two-way on-the-air testing with slow bpsk ?
Thanks again, 73 JIM K6OYY

At 02:41 PM 2/22/97 -0600, you wrote:
>
>K6OYY says:
>
>> I tried setting the SendFixedMessage parameter equ 0 in the
>>interest of trying the keyboard mode, reassembled the modified file,
>>successfully loaded it, but it does not seem to run or "print" using the
>>same terminal monitoring setup I used to test the beacon mode. Tried ctrl T
>>and ctrl R to switch back and forth transmit to receive.....but no text
>>printed via keyboard input in the tx mode (I'm assuming the ^T and ^R mean
>>ctrl T and ctrl R pursuant to frequent convention). So back to the 'ol
>>drawing board.
>
>
>It works fine for me with the code I uploaded. But does not echo
>the TX data, so the only sign that you are transmitting is that
>the transmitter keys up. Or maybe you have a RS-232 wiring error,
>or possibly something like non-zero bit-8 parity in the TX data
>characters is keeping the program from seeing your input.
>
>If you have no radio at all hooked up to the EVM, the program may
>appear to be operating in half-duplex mode, i.e. stuff you type
>when transmitting (or that the beacon mode sends) is echoed back.
>But it's not deliberately doing this. What happens is that there
>is maybe -60 dB leakage between the analog input and output
>signals of the CODEC. Thus, a tiny bit of the TX audio gets fed
>into the input, and is demodulated and sent to the host computer.
>(This is a full-duplex modem). It's interesting that the
>demodulator can still demodulate an input that is 60 dB below the
>"correct" level! Of course, of you have any noise signal at all
>coming in from a radio, the leakage signal will be swamped by it,
>and you won't see this effect.
>
>Doug
>N1OWU
>
>
>

57. (no subject)

From: "Carlos J. Sanz" <dolicura@ctv.es>
Date: Tue, 25 Feb 1997 00:22:37 +0100
To: dsp@tapr.org
Message-ID: <331222BD.4DB3@ctv.es>
Rendered body type: text/plain

subscribe

58. Re: [DSP:359] Re: EVM clock 40 or 68 MHz?

From: "Donald E. Haselwood" <k4jpj@appstate.campus.mci.net>
Date: Mon, 24 Feb 1997 20:31:38 -0500
To: dsp@tapr.org
Message-ID: <199702250131.UAA03390@aus-b.mp.campus.mci.net>

Rendered body type: text/plain

>Operation of the 40 MHz parts at 66 MHz will probably work, but beware
>that the operation may NOT be reliable. If you encounter something very
>odd happening, make sure you are operating within spec.
>

I was pondering how I might determine how fast my EVM would work. As I
remember, in the early days (60's & 70's) there was usually program one
would run that would check that all the instructions worked. I wonder if
something like that is floating around for the 56002 so that one could keep
cranking up the speed until it failed the test.

73's
Don

59. 9k6 Packet on EVM56002 ???

From: christian.geuer@crypto.gun.de (Christian H. Geuer)
Date: 24 Feb 1997 21:39:00 +0100
To: dsp@tapr.org
Message-ID: <6RUt5WRfUKB@crypto.gun.de>
Rendered body type: text/plain

Hello, DSP-Programmers

Does there exist a program to use the Motorola EVM as an 9k6-TNC?

73 de Christian, DG5EAW

geuer@crypto.gun.de   // Home
geuer@uni-wuppertal.de // Uni
cgeuer@tegate.mmo.de   // Job
dg5eaw

60. Re: [DSP:374] 9k6 Packet on EVM56002 ???

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Tue, 25 Feb 1997 12:20:19 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970225122019.006b4ddc@camel.campbell.edu>
Rendered body type: text/plain

Yes, and it works great! Based on the G3RUH code, it runs in KISS mode,
full duplex (or simplex), so it can easily be used with Wisp32, NOS, or the
recently modified terminal program called PMP (thanks to Doug, N1OWU for
making it KISS-compatible).

At 20:52 2/24/97 -0600, you wrote:
>Hello, DSP-Programmers
>
>Does there exist a program to use the Motorola EVM as an 9k6-TNC?
>
>73 de Christian, DG5EAW
>
>
>
>geuer@crypto.gun.de   // Home
>geuer@uni-wuppertal.de // Uni
>cgeuer@tegate.mmo.de   // Job
>dg5eaw
>
>
>

Mark L. Hammond   [KC4EBR]

61. Re: [DSP:375] Re: 9k6 Packet on EVM56002 ???

From: George Cserenyi <zsolt@direct.ca>
Date: Tue, 25 Feb 1997 12:08:26 -0800 (PST)
To: "Mark L. Hammond" <hammond@camel.campbell.edu>
Cc: dsp@tapr.org
Message-ID: <Pine.LNX.3.95.970225120615.10953A-100000@cirmos.ci.ca>
Rendered body type: text/plain

On Tue, 25 Feb 1997, Mark L. Hammond wrote:

> Yes, and it works great! Based on the G3RUH code, it runs in KISS mode,
> full duplex (or simplex), so it can easily be used with Wisp32, NOS, or the
> recently modified terminal program called PMP (thanks to Doug, N1OWU for
> making it KISS-compatible).
>
And we won't tell u what is it called, where can u find it! :)))
>
>
> At 20:52 2/24/97 -0600, you wrote:
> >Hello, DSP-Programmers
> >
> >Does there exist a program to use the Motorola EVM as an 9k6-TNC?
> >
> >73 de Christian, DG5EAW
[...]
>
> Mark L. Hammond   [KC4EBR]
>
>

62. Re: [DSP:376] Re: 9k6 Packet on EVM56002 ???

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Tue, 25 Feb 1997 23:32:12 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970225233212.006b8990@camel.campbell.edu>
Rendered body type: text/plain

Oh, details, details...;-)

Look for g3ruh.asm in the file:

n1owu_11.zip which is at

ftp://ftp.tapr.org/tapr/SIG/dsp/recent_uploads/n1owu_11.zip

At 13:13 2/25/97 -0600, you wrote:
>
>
>On Tue, 25 Feb 1997, Mark L. Hammond wrote:
>
>> Yes, and it works great! Based on the G3RUH code, it runs in KISS mode,
>> full duplex (or simplex), so it can easily be used with Wisp32, NOS, or the
>> recently modified terminal program called PMP (thanks to Doug, N1OWU for
>> making it KISS-compatible).
>>
>And we won't tell u what is it called, where can u find it! :)))
>>
>>
>> At 20:52 2/24/97 -0600, you wrote:
>> >Hello, DSP-Programmers
>> >
>> >Does there exist a program to use the Motorola EVM as an 9k6-TNC?
>> >
>> >73 de Christian, DG5EAW
>[...]
>>
>> Mark L. Hammond   [KC4EBR]
>>
>>
>
>
>

Mark L. Hammond   [KC4EBR]

63. CAT line on EVM radio interface?

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Tue, 25 Feb 1997 23:56:14 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970225235614.006b4dfc@camel.campbell.edu>
Rendered body type: text/plain

Hello all 56002EVM users,

I've browsed through a bit of the existing .asm files and have not yet
found any that use the CAT line that is detailed in Johan's radio interface
for the EVM.

Does anybody know of any EVM code that uses the computer aided tuning
(presumably the meaning of the CAT)? It looks to me like most use either
the UP/DOWN mic clicks or nothing.

Can anybody confirm or deny? The reason I ask is that I am making cables
and don't QUITE have enough wires in my cables for all of the lines...

Mark L. Hammond   [KC4EBR]

64. FREE Analog Devices DSP development kit!

From: Don Elsner <elsner@csd.uwm.edu>
Date: Tue, 25 Feb 1997 19:51:40 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.OSF.3.91.970225193839.4937A-100000@alpha1.csd.uwm.edu>
Rendered body type: text/plain

I was surfing through the Analog Devices web site today and found some
interesting information that I thought would be of interest to all dsp'ers.

Analog Devices in conjunction with Hamilton Hallmark is offering a 1 day
seminar entitled "From Algorithm to Product - A practical guide to embedded
system implementation using DSP". this seminar will be offered in over 10
cities throughout the u.s. Cost is $45 and includes the following:

-FREE DSP fixed point development kit, complete with development board,
assembler, linker, debugger, and example code ($89 value)

-FREE DSP Navigator software which allows you to navigate through ADI's
 DSP architecture.

-FREE custom conference Workbook

-Chance to win a SHARC DSP floating point development kit.

-FREE lunch (and you thought those days were gone!)

Seminar- Analog Devices engineers will take you on an exploration of the
         world of DSP. A real application problem in the area of audio
         will be addressed to serve as an example of developing a DSP
         system.

lots more info at http://www.analog.com/new/seminar/dsp.html

this seems like an excellent deal to me if you are looking to learn
about DSP.

disclaimer: I am in no way connected with Analog Devices or Hamilton
Hallmark. I am just an engineering student and thought that this would
be of interest.

73 - don KS9F

65. Re: [DSP:378] CAT line on EVM radio interface?

From: dbraun@ichips.intel.com
Date: Tue, 25 Feb 1997 23:39:49 -0800
To: dsp@tapr.org
Message-ID: <199702260739.AA011822789@dtthp135.jf.intel.com>
Rendered body type: text/plain

I have never seen any. I think that this connection is basically useless,
since it would keep you from connecting th eCAT line to a tuning control
computer. I wouldn't worry about it...

Doug
N1OWU

> Does anybody know of any EVM code that uses the computer aided tuning
> (presumably the meaning of the CAT)? It looks to me like most use either
> the UP/DOWN mic clicks or nothing.

66. Re: [DSP:380] Re: CAT line on EVM radio interface?

From: Lyle Johnson <lylej@azstarnet.com>
Date: Wed, 26 Feb 1997 07:01:41 -0700
To: dsp@tapr.org
Message-ID: <3.0.32.19970226070027.00717f90@pop.azstarnet.com>
Rendered body type: text/plain

Actually, the ICOM interface is multi-drop, so the EVM could do something
and so could another host...

At 01:43 AM 2/26/97 -0600, you wrote:
>I have never seen any. I think that this connection is basically useless,
>since it would keep you from connecting th eCAT line to a tuning control
>computer. I wouldn't worry about it...
>
>Doug
>N1OWU
>
>
>> Does anybody know of any EVM code that uses the computer aided tuning
>> (presumably the meaning of the CAT)? It looks to me like most use either
>> the UP/DOWN mic clicks or nothing.
>
>
>

67. Re: AD DSP Seminar

From: Lawrence Stoskopf <stoskopf@tri.net>
Date: Thu, 27 Feb 1997 00:09:26 -0600
To: dsp@tapr.org
Message-ID: <33152515.65BD@tri.net>
Rendered body type: text/plain

>From DSP Digest 96

>Analog Devices in conjunction with Hamilton Hallmark is offering a 1 >day seminar entitled "From
Algorithm to Product - A practical guide to >embedded system implementation using DSP". this seminar
will be >offered in over 10 cities throughout the u.s. Cost is $45 and includes >the following:
(snip)

What TAPR really needs to do is get AD to let TAPR put the seminar on
the TAPR WEB site on Real Audio. Sure Moto is the vogue now, but we all
might learn something.

BTW: Appears that there are no DSP engineers in the whole central USA!

N0UU

68. Re: [DSP:382] Re: AD DSP Seminar

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Thu, 27 Feb 1997 00:29:09 -0600
To: dsp@tapr.org
Message-ID: <v03007803af3ad9b9f0b5@[208.134.134.40]>
Rendered body type: text/plain

What we need to do is get them to come to the DCC in Baltimore and put on
the seminar there -- say Friday.   We have the space available and not
committed to yet.

Then we could put the audio up on the web site if everyone was happy with
doing that.

Cheers -- Greg

>>From DSP Digest 96
>
>>Analog Devices in conjunction with Hamilton Hallmark is offering a 1 >day
>>seminar entitled "From Algorithm to Product - A practical guide to
>>>embedded system implementation using DSP". this seminar will be
>>>offered in over 10 cities throughout the u.s. Cost is $45 and includes
>>>the following:
>(snip)
>
>What TAPR really needs to do is get AD to let TAPR put the seminar on
>the TAPR WEB site on Real Audio. Sure Moto is the vogue now, but we all
>might learn something.
>
>BTW: Appears that there are no DSP engineers in the whole central USA!
>

>N0UU

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd
-----

69. Re: [DSP:382] Re: AD DSP Seminar

From: Lyle Johnson <lylej@azstarnet.com>
Date: Thu, 27 Feb 1997 07:37:17 -0700
To: dsp@tapr.org
Message-ID: <3.0.32.19970227073403.00732e74@pop.azstarnet.com>
Rendered body type: text/plain

>BTW: Appears that there are no DSP engineers in the whole central USA!

Or the non-California southwest :-(

70. Re: [DSP:384] Re: AD DSP Seminar

From: "Fred M. Spinner" <fred@tekdata.com>
Date: Thu, 27 Feb 1997 10:27:31 -0600 (CST)
To: Lyle Johnson <lylej@azstarnet.com>
Cc: dsp@tapr.org
Message-ID: <Pine.BSF.3.91.970227102612.20541F-100000@tekdata.com>
Rendered body type: text/plain

On Thu, 27 Feb 1997, Lyle Johnson wrote:

> >BTW: Appears that there are no DSP engineers in the whole central USA!
>

Well, its pretty dry in general for engineers in the Midwest.. if I didn't
have a new house, new wife and family here in Chicago.. I'd be gone!

> Or the non-California southwest :-(
>
>
>
Fred M. Spinner, Systems Engineer (KA9VAW)
Tek Data Systems Co.
fred@tekdata.com

71. Re: [DSP:378] CAT line on EVM radio interface?

From: "Fred M. Spinner" <fred@tekdata.com>
Date: Thu, 27 Feb 1997 10:04:12 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.BSF.3.91.970227100104.20541C-100000@tekdata.com>
Rendered body type: text/plain

On Tue, 25 Feb 1997, Mark L. Hammond wrote:

> Hello all 56002EVM users,
>
> I've browsed through a bit of the existing .asm files and have not yet
> found any that use the CAT line that is detailed in Johan's radio interface
> for the EVM.
>
> Does anybody know of any EVM code that uses the computer aided tuning
> (presumably the meaning of the CAT)? It looks to me like most use either
> the UP/DOWN mic clicks or nothing.
>
> Can anybody confirm or deny? The reason I ask is that I am making cables
> and don't QUITE have enough wires in my cables for all of the lines...
>
>
> Mark L. Hammond   [KC4EBR]
>
>
>
>From looking at the sources no, not yet. I think the CAT is just
TTL level serial though (RS-232 w/5v level)... (I think 1200,n,8,1)

To make this work, someone would need to write a UART emulator. Not
a totally impossible task. I wonder more if a kiss command is available
to send something to the EVM to send to the radio.

Of course, Yaesu's CAT format, as well as ICOM's and Kenwoods formats
would have to be written in too.

I don't think you need that yet, but if it is ever implemented, it would
be nice..

Fred M. Spinner, KA9VAW
fred@tekdata.com

72. EVM Startup WWW Page...

From: "Fred M. Spinner" <fred@tekdata.com>
Date: Thu, 27 Feb 1997 16:12:41 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.BSF.3.91.970227160536.21420A-100000@tekdata.com>
Rendered body type: text/plain

I've taken KC4EBR's beginner's page, and transcribed it to HTML.
I also written some instructions as how to program the FLASH EEPROM and
some descriptions, etc. Anyway, its a start. Critique if you please,
but if you do, give me some additions when you do! :)

The URL:

http://www.tekdata.com/KA9VAW/EVM/index.html

Fred M. Spinner, KA9VAW
fred@tekdata.com

73. Re: [DSP:387] EVM Startup WWW Page...

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Thu, 27 Feb 1997 23:27:46 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970227232746.006c55d4@camel.campbell.edu>
Rendered body type: text/plain

Way cool, Fred! A very nice addition and resource. Thanks for your
efforts...

At 16:11 2/27/97 -0600, you wrote:
>I've taken KC4EBR's beginner's page, and transcribed it to HTML.
>I also written some instructions as how to program the FLASH EEPROM and
>some descriptions, etc. Anyway, its a start. Critique if you please,
>but if you do, give me some additions when you do! :)
>
>The URL:
>
>http://www.tekdata.com/KA9VAW/EVM/index.html
>
>Fred M. Spinner, KA9VAW
>fred@tekdata.com
>
>
>

Mark L. Hammond   [KC4EBR]

74. Re: [DSP:387] EVM Startup WWW Page...

From: bsmeds@esoc.esa.de
Date: Fri, 28 Feb 1997 09:22:57 +0200
To: dsp@tapr.org
Cc: Fred@tekdata.com
Message-ID: <C125644C.002BFDC3.00@esocmail1.esoc.esa.de>
Rendered body type: text/plain

Very nice done Fred.
>I've taken KC4EBR's beginner's page, and transcribed it to HTML.
>I also written some instructions as how to program the FLASH EEPROM and
some descriptions, etc. >Anyway, its a start. Critique if you please,
>but if you do, give me some additions when you do! :)

>The URL:

> http://www.tekdata.com/KA9VAW/EVM/index.html

>Fred M. Spinner, KA9VAW
>fred@tekdata.com

Some comments:

The socket for the EEPROM is 28 pin.
I got my AT29C256 from Segor Electronics Berlin Germany
http://www.segor.de
(I have no connections to the firm, used them the first time, fast
delivery.)
I have not seen the PSK400.asm. Has such a program been published already?
I would sure be interested in that.
Regards
Boris
DJ0EX SM0GJ

75. Re: [DSP:387] EVM Startup WWW Page...

From: dbraun@ichips.intel.com
Date: Fri, 28 Feb 1997 12:19:45 +0200
To: dsp@tapr.org
Message-ID: <199702281019.AA183185194@dtthp135.jf.intel.com>
Rendered body type: text/plain

Thanks for compiling this information.
Here's a couple of corrections:

I have no Phase 3D 300BPS modem in my package.
(or if I do, it's in there by mistake).

Also the SLOWBPSK.ASM modem is something
like 37.5 baud, not 300 baud (hence the name).

By the way, here's a hint for designing a radio interface: Avoid
using Darlington transistors (or driver ICs with them, like the
ULN2803) for driving radio PTT and microphone UP/DN lines.
Darlington transistors have a minimum turned-on Vce voltage of at
least 1 volt, so they will not pull the radio input signals
completely to ground. This drove my TS-50 crazy, and I had to rip
out the ULN2803 and replace it with discrete NPN transistors (one
per signal).

Doug
N1OWU

P.S.: I'm sure there is no possible copyright issue if you
put links in your page to www.tapr.org, etc.

- --CAA13422.857125085/ormail.intel.com--

------- End of Forwarded Message

76. Re: [DSP:390] Re: EVM Startup WWW Page...

From: Lyle Johnson <lylej@azstarnet.com>
Date: Fri, 28 Feb 1997 07:26:33 -0700
To: dsp@tapr.org
Message-ID: <3.0.32.19970228072615.0074c240@pop.azstarnet.com>
Rendered body type: text/plain

Doug,

Good advice!

The original TAPR alpha TNC (only a dozen or so ever built) had the
ULN2803. We quickly discovered that some radios were very unhappy with
this and used switching mosfet transistors after that.

Other radios have bizarre characteristics on their channeling lines. For
example, the old Motorola Mitrek radios (many in use for 9600 bit/sec links
in the midwest US) will modulate the output carrier with noise on its
selection line - 50 mV is too much! And it wants a hard GROUND to select.

Cheers,

Lyle

>By the way, here's a hint for designing a radio interface: Avoid
>using Darlington transistors (or driver ICs with them, like the
>ULN2803) for driving radio PTT and microphone UP/DN lines.
>Darlington transistors have a minimum turned-on Vce voltage of at
>least 1 volt, so they will not pull the radio input signals
>completely to ground. This drove my TS-50 crazy, and I had to rip
>out the ULN2803 and replace it with discrete NPN transistors (one
>per signal).

77. Re: [DSP:390] Re: EVM Startup WWW Page...

From: "Donald E. Haselwood" <k4jpj@appstate.campus.mci.net>
Date: Fri, 28 Feb 1997 10:37:09 -0500
To: dsp@tapr.org
Message-ID: <199702281537.KAA28421@aus-b.mp.campus.mci.net>
Rendered body type: text/plain

At 04:25 AM 2/28/97 -0600, you wrote:
>
>
>By the way, here's a hint for designing a radio interface: Avoid
>using Darlington transistors (or driver ICs with them, like the
>ULN2803) for driving radio PTT and microphone UP/DN lines.
>Darlington transistors have a minimum turned-on Vce voltage of at
>least 1 volt, so they will not pull the radio input signals
>completely to ground. This drove my TS-50 crazy, and I had to rip
>out the ULN2803 and replace it with discrete NPN transistors (one
>per signal).
>
>Doug
>N1OWU
>
>------- End of Forwarded Message

Doug,

On the Motorola 68HC11 listserv there was a comment about drivers and
recommended against using the ULN2003 (darlington) following a 74HC595 (ser
in, parallel out), when driving relays. Apparently the 595 would get
"switched" due to a noise problem (even when properly bypass). A TI part,
TPIC6B595, was recommended instead. This part has serial shift reg, latches
and open-drain FET's for the output. The FET's should overcome the
turned-on voltage problem (8 ohm Rds). I was going to drive a three of
these from port B, implementing the serial output via the timer interupt, to
drive LED's and other "slow" outputs. I haven't found a source as yet for
the part (though one place had the surface mount version).

Don
W4GWC

78. EVM Starter Page..

From: "Fred M. Spinner" <fred@tekdata.com>
Date: Fri, 28 Feb 1997 11:41:27 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.BSF.3.91.970228113831.23423A-100000@tekdata.com>
Rendered body type: text/plain

The Inital flaws have been taken out. I still need to complete the
list of available software for the unit.

I added the comments on not using the ULN2803. (I wish I'd known about that
about two days ago!!!).

Keep me informed if there is anything else I should change or add.

the URL again is: http://www.tekdata.com/KA9VAW/EVM/index.html

Fred M. Spinner, KA9VAW
fred@tekdata.com

79. Re: [DSP:384] Re: AD DSP Seminar

From: fperkins@onramp.net
Date: Fri, 28 Feb 1997 20:26:40 -0600 (CST)
To: dsp@tapr.org
Message-ID: <199703010226.UAA10115@mailhost.onramp.net>
Rendered body type: text/plain

Hi Lyle et al,

TI's DSP group is in Houston I think and Rice Univ down there
seems to do DSP - look at there web site.

May the Fourier be with you ...

73 Frank WB5IPM

80. Re: [DSP:384] Re: AD DSP Seminar

From: fperkins@onramp.net
Date: Fri, 28 Feb 1997 20:29:35 -0600 (CST)
To: dsp@tapr.org
Message-ID: <199703010229.UAA10900@mailhost.onramp.net>
Rendered body type: text/plain

<---- Begin Forwarded Message ---->
From: fperkins@onramp.net
Subject: Re: [DSP:384] Re: AD DSP Seminar
To: dsp@tapr.org

Hi Lyle et al,

TI's DSP group is in Houston I think and Rice Univ down there
seems to do DSP - look at there web site.

May the Fourier be with you ...

73 Frank WB5IPM

PS - not to forget the Motorola folks in Austin ...

<---- End Forwarded Message ---->

March 1997

Original source file: dsp.9703
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9703

1. RE: [DSP:347] DSPX232.ZIP

From: Ted Wolf Jr <ted@usa.net>
Date: Sat, 1 Mar 1997 15:06:44 -0500
To: "'dsp@tapr.org'" <dsp@tapr.org>
Message-ID: <01BC2652.4DE5A280@ip18.morristown2.nj.pub-ip.psi.net>
Rendered body type: text/plain

I have tried to locate this software unsuccessfully. Could you give me a location?

Thanks

Ted Wolf Jr kb2blx

-----Original Message-----
From: Dennis Cahill [SMTP:cahill@chasque.apc.org]
Sent: Saturday, February 15, 1997 8:36 AM
To: dsp2232%rmi.de%chasque@cdp.igc.org; dsp@tapr.org
Subject: [DSP:347] DSPX232.ZIP

I have uploaded DSPx232.ZIP. It contains the bootloader files, and
utilities written by Andy Madsen, formally of AEA, to make the ROM's
for the DSPX232. This zip does not contain any modems. That will
happen
when I return from my trip. There are things I would like to make major
improvements in and will do so. The files do contain the programming
model for the DSP side of the DSP2232. The modems I know that I can
make major improvements in will be primarily the HF modems. I need to
replace the guts of them without changing their external functionality.
This will allow you to qload these modems to RAM. The RAM in the
DSPX232
is battery backed so it will retain these modems 'til the next time you
have to do a reset.

The development of these modems will be done on the EVM. I am extremely
impressed with the unit. Pat Spatafore tried to sell me on using the
Crystal Semiconductors Codec's when we first started. The only reason
I did not do it is you could not set different rates in the two channels
and that defeated the versatility we wanted for the DSP2232. Since we
never UTILIZED the DSP2232's full versatility, . . .

The file is in dsp/upload until someone moves it. I am really sorry
that
this is happening two months later than I had hoped it would. Things
are
going well at work for me and this has forced me to do dog and ponies
and
travel. For that, I am not sorry.

Bob
--
****
* Robert W. McGwier, Ph.D. * Mathematician. Hobbies: Computers,
Astronomy*
* 64 Brooktree Rd.   * Amateur Radio, and Golf. Scouts: Advisor
*
* East Windsor, NJ 08520   * Post 995, Troop 5700 Advancement Chair,
*
* (H) 609-443-8963   * Sanhican #2 (Brotherhood), Used to be a
*
* (F) 609-924-3061   * Buffalo (NE-III-120). George Washington
*
* (W) 609-279-6240   * Council. Brownie Troop 193
*
****

You are on dsp2232 List. If you have problems get help by sending mail to:
Majordomo@RMI.de with message BODY: help
---

2. More on starter pg..

From: "Tek Data Systems Co." <tekdata@tekdata.com>
Date: Sun, 2 Mar 1997 14:33:43 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.BSI.3.95.970302143225.18552A-100000@sashimi.wwa.com>
Rendered body type: text/plain

Did a bit of work on the page again. It's starting to become useful.
the EVM starter page is at:

http://www.tekdata.com/KA9VAW/EVM/index.html

Fred M. Spinner, KA9VAW
fred@tekdata.com

3. TI DSP 15th Year Anniversary Sale

From: dspnews@dspnet.com (by way of Greg Jones, WD5IVD)
Date: Tue, 4 Mar 1997 20:44:58 -0600
To: " TAPR/AMSAT DSP "<dsp@tapr.org>, "DSP-93 Build "<dsp-93@tapr.org>
Message-ID: <v03007825af428e77d602@[208.134.134.40]>
Rendered body type: text/plain

In 1982, Texas Instruments introduced the first commercially available DSP
to the world. To celebrate our first 15 years, TI is announcing the 15th
Anniversary TMS320 Development Tool Sale.

>From March 1 through June 30, 1997, select TMS320 development tools are on
sale for up to 65% off. This includes tools such as the TMS320C54x debugger
(SPARC version), regularly priced at US $4,000, now on sale for US $1,500.
Or, consider the TMS320C3x/C4x C Compiler/Assembler/Linker (PC version),
regularly priced at US $1,500, now on sale for US $750. That's 50% off the
US suggested resale price!

The tools sale includes debuggers, simulators, assembler/linkers, C
compilers, XDS-510s, and EVMs for the TMS320C2x, 'C2xx, 'C5x, 'C54x, 'C3x,
'C4x, and 'C8x generations.

Want to see more? The complete price list is available at
http://www.techonline.com/anniversary.html

Remember, this sale is not valid with any other offer or coupon, and is only
available for a limited time. So, don't delay and contact your local TI
authorized distributor or TI sales office today. For a listing of your local
distributors, see http://www.ti.com/sc/docs/distmenu.htm

4. DSP list.

From: Geoff Bagley <geoff@gcbagley.demon.co.uk>
Date: Thu, 6 Mar 1997 17:12:53 +0000
To: DSP@tapr.org
Message-ID: <$5MfqDAVsvHzEw4n@gcbagley.demon.co.uk>
Rendered body type: text/plain

I understand that you have a mailing list dealing with the applications
of DSP to Amateur Radio.

I would like to join such a list and pick up some ideas.

I am on the air with 31.25 DPSK using a Texas TMS320.
My friend G3PLX is using a Motorola 56000.

Please may I have any info on joining a discussion list ?

73
--
Geoff Bagley.
G3FHL.

5. What's DSP CARD 4

From: christian.geuer@crypto.gun.de (Christian H. Geuer)
Date: 08 Mar 1997 14:31:00 +0100
To: dsp@tapr.org
Message-ID: <6SV6BEZQUKB@crypto.gun.de>
Rendered body type: text/plain

Hello, DSP-Programmers

Can anybody tell me what the "Alef Null DSP CARD 4" is? Is it an extension
to connect the EVM56002 to my TRX?

I downloaded the N1OWU-Package and thougt about easily testing and playing
with coded examples, but it's a bit more difficult than I thought. I use a
basic EVM56002 with a PC and a CD-Player as audio-source for testing the
examples.

Thanks for your help....

73 de DG5EAW

Mit freundlichen Gruessen

Christian

geuer@crypto.gun.de   // Home
geuer@uni-wuppertal.de // Uni
cgeuer@tegate.mmo.de   // Job
CrossPoint v3.1

6. WTB DSP56002EVM

From: "Robert J. Hurle" <hurle@connix.com>
Date: Sat, 08 Mar 1997 11:47:47 -0500
To: dsp@tapr.org
Message-ID: <33219832.D06@connix.com>
Rendered body type: text/plain

Anyone interested in selling their DSP56002EVM?
--
Robert J. Hurle (K1CJJ)
415 Roast Meat Hill Rd. Killingworth, CT 06419
hurle@connix.com   voice : (203) 663-1052

7. Re: [DSP:401] WTB DSP56002EVM

From: dave dabay <kd3pc@usit.net>
Date: Sat, 8 Mar 1997 21:59:01 -0500 (EST)
To: dsp@tapr.org
Message-ID: <199703090259.VAA04746@SMTP.USIT.NET>
Rendered body type: text/plain

At 10:48 AM 3/8/97 -0600, you wrote:
>Anyone interested in selling their DSP56002EVM?

I have one, but the new job and racing starting doesn't leave much time. I
have opened the box but have not done anything beyond that. I would sell it
for cost plus shipping to your QTH, or trade for QRP, oscope, etc...

dave

>--
>Robert J. Hurle (K1CJJ)
>415 Roast Meat Hill Rd. Killingworth, CT 06419
>hurle@connix.com   voice : (203) 663-1052
>
>
>

Dave Dabay KD3PC QRP-L #365   Race at ELK CREEK DRAGWAY
                                  540-674-4161

8. Re: [DSP:402] Re: WTB DSP56002EVM

From: "Robert J. Hurle" <hurle@connix.com>
Date: Sun, 09 Mar 1997 16:46:56 -0500
To: dsp@tapr.org
Message-ID: <33232FD0.480D@connix.com>
Rendered body type: text/plain

Sounds like we can do business. I left a message on your phone.
Call me at 860 663 1051 collect.
--
Robert J. Hurle (K1CJJ)
415 Roast Meat Hill Rd. Killingworth, CT 06419
hurle@connix.com   voice : (203) 663-1052

9. Re: [DSP:400] What's DSP CARD 4

From: "Fred M. Spinner" <fred@tekdata.com>
Date: Mon, 10 Mar 1997 12:17:56 -0600 (CST)
To: "Christian H. Geuer" <christian.geuer@crypto.gun.de>
Cc: dsp@tapr.org
Message-ID: <Pine.BSF.3.91.970310121604.8281B-100000@tekdata.com>
Rendered body type: text/plain

On Sat, 8 Mar 1997, Christian H. Geuer wrote:

> Hello, DSP-Programmers
>
> Can anybody tell me what the "Alef Null DSP CARD 4" is? Is it an extension
> to connect the EVM56002 to my TRX?

The Alef Null CARD 4 was the original platform for the software for
the EVM.. it was ported to the EVM from the Alef Null card.
>
> I downloaded the N1OWU-Package and thougt about easily testing and playing
> with coded examples, but it's a bit more difficult than I thought. I use a
> basic EVM56002 with a PC and a CD-Player as audio-source for testing the
> examples.
>
Take a look at my "starter" page at http://www.tekdata.com/KA9VAW/EVM
It's not 100% yet, but I think you'll get a start at it.
I hope to add my radio interface schematic soon to it...

> Thanks for your help....
>
> 73 de DG5EAW
>
>
>
> Mit freundlichen Gruessen
>
> Christian

Fred M. Spinner, KA9VAW
fred@tekdata.com

10. DSP and electronic implants

From: forrerj@peak.org (Johan Forrer)
Date: Thu, 13 Mar 1997 04:36:04 -0800
To: dsp@tapr.org
Message-ID: <199703131236.EAA11842@PEAK.ORG>
Rendered body type: text/plain

Hi,

This question is not about usual amateur radio DSP experimentation but
thought I would give it a shot....

Does anyone know of any work on DSP and Cocliar (sp?) implants?

As I understand it, these are sensory/actuator devices that are implanted
into human
ears for patients with severely impaired hearing disorders. The implanted
device is
passive and works in conjunction with a small audio processor that amplifies
and
processes audio picked up from a small microphone. The resultant signal is
then used
to drive an inductive interface that works through the skin just above the
bearer's ear.

Impaired people's speech is often hard to understand because that reflects
how they "hear" the outside world. I am curious to know whether DSP may
perhaps help. If for instance; an audio transform or other signal processing
could perhaps be applied to compensate for a specific audio deficiency.

I was most impressed during my recent trip to South Africa seeing this
miracle technology at work on a totally-deaf young boy. He became
deaf as an infant due to a virus - never hearing what the real world sounded
like and now has learned to speak and behave quite normally.

I would be most interested and grateful if someone could point me in the
right direction for discussion groups or other appropiate information and would
appreciate personal direct e-mail.

73 and thanks very much,

Johan Forrer, KC7WW

11. Re: [DSP:405] DSP and electronic implants

From: dona@tridelta.com (Don Adams)
Date: Thu, 13 Mar 1997 08:53:22 -0500 (EST)
To: dsp@tapr.org
Message-ID: <199703131353.IAA10028@sparcy.tridelta.com>
Rendered body type: text/plain

The resultant signal is
then used
to drive an inductive interface that works through the skin just above the
bearer's ear.

Johan, How is this signal coupled to the neurons?
>

12. Re: [DSP:406] Re: DSP and electronic implants

From: forrerj@peak.org (Johan Forrer)
Date: Thu, 13 Mar 1997 07:25:00 -0800
To: dsp@tapr.org
Message-ID: <199703131524.HAA26128@PEAK.ORG>
Rendered body type: text/plain

Don,

>The resultant signal is
>then used
>to drive an inductive interface that works through the skin just above the
>bearer's ear.
>
>
>Johan, How is this signal coupled to the neurons?
>>
>
>
>

I am no expert at this, but from what I understand, there are electrodes
that are
snugly layed over parts of the inner ear. I don't think that these are
actually attached
to the nerves directly, perhaps just enough contact to provide sufficient
electrical
conductivity/stimulii to the underlaying nerves associated with hearing.
These are
some of the details that I am trying to learn about.

This youngster contracted the meningitis virus (deadly!) as an infant that
resulted in total
loss of hearing. They initially thought that a strong hearing aid, i.e., a
boost of
+40dB would give some hearing, but there was no response until the implant.
It is a
very expensive and, understandably, delicate procedure that is performed
only at few
institutions. The young man proudly showed me the tiny bulge above the ear
that forms the
interface. The external part of the sensor/actuator is definately an
inductor about 3/4 inch
diameter that fits loosely over the bulge. The apparatus is not all that
noticeable unless you
are aware of it and look for it. The electronics is contained in a small
flat package worn on
a belt around the waist. Interestingly, I cannot remember even seeing
surgical scars.

--Johan

13. Re: [DSP:407] Re: DSP and electronic implants

From: dona@tridelta.com (Don Adams)
Date: Thu, 13 Mar 1997 11:20:08 -0500 (EST)
To: dsp@tapr.org
Message-ID: <199703131620.LAA11059@sparcy.tridelta.com>
Rendered body type: text/plain

Johan
Interesting.... I worked on a system, few years ago, to
map the frequencies from 300-3000 into 300-1500hz
for someone who lost their hearing in these upper frequencies.
The idea was that, even thoug they would sound different,
what difference would it make if U never knew how they
sounded anyway! However the project was not completed
due to the person leaving the area. However I have had some
interest in restoring the project.

In Ur scheme, it sounds like the inductor may just inductively
couple the electrical stimulus through the skin, but in any case
making the deaf hear again (in any useful form) is incredible!.....

Don

14. software speed

From: douglas irving repetto <glmrboy@shoko.CALARTS.EDU>
Date: Thu, 13 Mar 1997 11:24:41 -0800
To: dsp@tapr.org
Message-ID: <l03020900af4d98776c55@[156.3.140.237]>
Rendered body type: text/plain

hi!

i'm running the domain technologies software that came with my 56002EVM
under SoftWindows95 on my macintosh. it's incredibly slow. if i run in
update mode, it takes at least 20 seconds for each instruction. pushing
play works right away, but after pushing stop it takes about 40 seconds to
update everything. "real time" monitoring of any values is impossible.

anyway, i'm just wondering if this is because i'm running under
softwindows, or whether this software is slooooooo on PC's too. my mac is
fast (8500/120), but softwindows itself is slow doing just about
everything. so maybe it's just softwindows that's the bottleneck???

thanks for your help!

douglas

douglas irving repetto (a.k.a. irving bellemead)

email: glmrboy@music.calarts.edu
http://shoko.calarts.edu/~glmrboy

*   *   *   *   *   *   *   *

"What a lovely dog! Does it have a phone?"

*   *   *   *   *   *   *   *

15. Re: [DSP:408] Re: DSP and electronic implants

From: forrerj@peak.org (Johan Forrer)
Date: Thu, 13 Mar 1997 12:02:23 -0800
To: dsp@tapr.org
Message-ID: <199703132002.MAA24728@PEAK.ORG>
Rendered body type: text/plain

Don,

Sorry if this sounds off-topic...

>Johan
>Interesting.... I worked on a system, few years ago, to
>map the frequencies from 300-3000 into 300-1500hz
>for someone who lost their hearing in these upper frequencies.
>The idea was that, even thoug they would sound different,
>what difference would it make if U never knew how they
>sounded anyway! However the project was not completed
>due to the person leaving the area. However I have had some
>interest in restoring the project.
>
>In Ur scheme, it sounds like the inductor may just inductively
>couple the electrical stimulus through the skin, but in any case
>making the deaf hear again (in any useful form) is incredible!.....
>
>Don
>

>

Very interesting work, Don. I found an excellent discussion by the folks at
the university of Melbourne, Australia, about cochlear implants at
http://rubens.its.unimelb.edu.au/~oto/. This is the device that I saw.
Apparently some 22 electrodes are attached to the cochlea; some on end of
the cochlea, others on the other end, which corresponds to stimulating high
or/and low audio frequencies respectively. The interesting part is that
these electrodes are driven at *RF* frequencies by an implanted electronics
package. The transducer accepts modulated RF through the skin and in turn
modulates the different electrodes accordingly. Power for an implanted
microcircuit is also derived from the RF field via the external coil.
Incedentally, the external transducer coil is held in place on the scalp by
a small magnet.

I do not know whether DSP is used at this point in time, but looks like some
very talented people working on this. Perhaps it is, but seems like it helps
to be a radio amateur to appreciate what it takes to make such a device
work, does'nt it?

73, Johan

16. Re: [DSP:409] software speed

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Thu, 13 Mar 97 15:10:27 CST
To: dsp@tapr.org
Message-ID: <9703132110.AA17228@aa5df.sps.mot.com>
Rendered body type: text/plain

>
> i'm running the domain technologies software that came with my 56002EVM
> under SoftWindows95 on my macintosh. it's incredibly slow. if i run in
> update mode, it takes at least 20 seconds for each instruction. pushing
> play works right away, but after pushing stop it takes about 40 seconds to
> update everything. "real time" monitoring of any values is impossible.
>
> anyway, i'm just wondering if this is because i'm running under
> softwindows, or whether this software is slooooooo on PC's too. my mac is
> fast (8500/120), but softwindows itself is slow doing just about
> everything. so maybe it's just softwindows that's the bottleneck???
>
> thanks for your help!
>
> douglas

Yes, softwindows is having to execute several MAC instructions for
every code instruction.

If you wish to use the debugger on a Mac I offer two suggestions:

1) purchase a plug in card with a 486 or 586 processor on it so you can
   run Windows and Mac stuff on its native processor.

2) Be certain your health care plan has a good Mental Health coverage -
you'll need it trying to watch variables, waiting for downloads, etc

Seriously, I ran Softwindows on this Sparc 20 for awhile (about 10
minutes). If made this Sparc 20 run about like a 286. I do admire
Softwindows ability to emulate Microsoft Windows. It even emulated the
General Protection Faults, just before it crashed!!!

Tim

17. Re: [DSP:409] software speed

From: Rob Frohne <frohro@wwc.edu>
Date: Thu, 13 Mar 1997 18:25:52 -0800 (PST)
To: dsp@tapr.org
Message-ID: <199703140225.SAA21161@adams.wwc.edu>
Rendered body type: text/plain

I'm running softwindows on a Mac 6100/66 DOS machine (with the 66 MHz
486) and it is pretty fast except to load files onto the EVM. I
heartily recommend the DOS board. At least for my computer they are
available for about $100.

Rob
>

> hi!
>
> i'm running the domain technologies software that came with my 56002EVM
> under SoftWindows95 on my macintosh. it's incredibly slow. if i run in
> update mode, it takes at least 20 seconds for each instruction. pushing
> play works right away, but after pushing stop it takes about 40 seconds to
> update everything. "real time" monitoring of any values is impossible.
>
> anyway, i'm just wondering if this is because i'm running under
> softwindows, or whether this software is slooooooo on PC's too. my mac is
> fast (8500/120), but softwindows itself is slow doing just about
> everything. so maybe it's just softwindows that's the bottleneck???
>
> thanks for your help!
>
> douglas
>
>
> douglas irving repetto (a.k.a. irving bellemead)
>
> email: glmrboy@music.calarts.edu
> http://shoko.calarts.edu/~glmrboy
>
> *   *   *   *   *   *   *   *
>
> "What a lovely dog! Does it have a phone?"
>
> *   *   *   *   *   *   *   *
>
>
>

18. Re: [DSP:405] DSP and electronic implants

From: "L. J. Shepherd" <ljs@west.net>
Date: Fri, 14 Mar 1997 00:15:21 -0800 (PST)
To: dsp@tapr.org
Message-ID: <199703140815.AAA14158@acme.sb.west.net>
Rendered body type: text/plain

Hello Johan:
        One of the leading groups in this country doing cochlear implants
was the House Clinic in Los Angeles. Dr. John House and his father Howard
(and brother as I recall) have been recognized as experts in the physiology
of the inner ear for many years. I am not aware of the current status of
their work.
        I worked a bit in the 60's on some limited research aimed at
defining the neurophysiology of the inner ear, we were then just beginning
to understand cochlear function. I suspect that modern technology and
computer modeling have served the field well.....I remember that AT&T
(likely then Bell Labs) did some fascinating animations of basilar membrane
motion in the cochlea based on computer generated predictions of wave motion
with mechanical (acoustic) excitation via the outer to inner ear's
'mechanical' coupling. The small hair-like cells on the organ of Corti
(running the length of the membrane) were thought to couple directly to the
auditory nerve and generate the neural impulses that were subsequently
responsible for the sensation of hearing. There would likely be some
interesting comparisons to be made with present day SAW filter technology.
        An interesting finding I once read described a technique in which an
rf transducer excited at about 100 kHz was placed over a major nerve trunk
on a subjects arm, when the source was modulated the subject was alleged to
hear the test signal via the non-acoustic path nerve trunk coupling. I
recall the researcher was named Flanagan and that he called his device a
"neurophone". I have no knowledge of the eventual outcome or ultimate
credibility of Flanagan's work, but I was always curious to know if they
ever tried it on subjects with outer ear (tympanic membrane/eardrum)
dysfunction.
        Hope all is well up your way, haven't had much time lately to work
with my new EVM.......did print your interface schematic however.
                                73   L. J. Shepherd   K6OYY

At 06:41 AM 3/13/97 -0600, you wrote:
>Hi,
>
>This question is not about usual amateur radio DSP experimentation but
>thought I would give it a shot....
>
>Does anyone know of any work on DSP and Cocliar (sp?) implants?

>
>As I understand it, these are sensory/actuator devices that are implanted
>into human
>ears for patients with severely impaired hearing disorders. The implanted
>device is
>passive and works in conjunction with a small audio processor that amplifies
>and
>processes audio picked up from a small microphone. The resultant signal is
>then used
>to drive an inductive interface that works through the skin just above the
>bearer's ear.
>
>Impaired people's speech is often hard to understand because that reflects
>how they "hear" the outside world. I am curious to know whether DSP may
>perhaps help. If for instance; an audio transform or other signal processing
>could perhaps be applied to compensate for a specific audio deficiency.
>
>I was most impressed during my recent trip to South Africa seeing this
>miracle technology at work on a totally-deaf young boy. He became
>deaf as an infant due to a virus - never hearing what the real world sounded
>like and now has learned to speak and behave quite normally.
>
>I would be most interested and grateful if someone could point me in the
>right direction for discussion groups or other appropiate information and
would
>appreciate personal direct e-mail.
>
>
>73 and thanks very much,
>
>Johan Forrer, KC7WW
>
>
>

19. AMSAT Italy EVM developments

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 14 Mar 1997 06:57:16 -0800
To: dsp@tapr.org
Message-ID: <199703141457.GAA01184@PEAK.ORG>
Rendered body type: text/plain

Hi Greg,

I just returned from my overseas trip - still fighting jet lag, but starting
to feel a bit more at home.

I thought I would let you know that the AMSAT Italy folks are presently
looking at making some decision regarding the EVM as a future platform. They
have a special offer from Motorola to use the 56302 EVM.

Should we perhaps see if we can do something jointly?

Let me know and we can set up a communication.

73, Johan

20. more on software speed

From: douglas irving repetto <glmrboy@shoko.CALARTS.EDU>
Date: Fri, 14 Mar 1997 14:49:59 -0800
To: dsp@tapr.org
Message-ID: <l03020903af4f1b0a7668@[156.3.140.237]>
Rendered body type: text/plain

thanks for your responses about softwindows . . .

now i'm wondering how the software runs on say, and old 386. i could pick
one up for about $100. would it be worth it? would it be fast enough for
resonable update mode speed?

thanks,

douglas

douglas irving repetto (a.k.a. irving bellemead)

email: glmrboy@music.calarts.edu
http://shoko.calarts.edu/~glmrboy

*   *   *   *   *   *   *   *

"What a lovely dog! Does it have a phone?"

*   *   *   *   *   *   *   *

21. Re: [DSP:415] more on software speed

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Fri, 14 Mar 97 17:30:11 CST
To: dsp@tapr.org
Message-ID: <9703142330.AA20159@aa5df.sps.mot.com>
Rendered body type: text/plain

>
> thanks for your responses about softwindows . . .
>
> now i'm wondering how the software runs on say, and old 386. i could pick
> one up for about $100. would it be worth it? would it be fast enough for
> resonable update mode speed?
>

Great, run the DOS version of the debugger (included in the evm28.exe
software distribution that is available on the WWW)

Regards,
Tim

22. Re: [DSP:415] more on software speed

From: dbraun@ichips.intel.com
Date: Fri, 14 Mar 1997 23:09:22 -0800
To: dsp@tapr.org
Message-ID: <199703150709.AA190159762@dtthp135.jf.intel.com>
Rendered body type: text/plain

I have run the DOS version of the EVM debugger just fine on
a HP200LX DOS Palmtop computer. This uses a 8086-class CPU,
with a 10MHz or so clock speed.

Doug
N1OWU

23. TAPR Board Election -- Don't forget to vote!

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Sun, 23 Mar 1997 14:05:32 -0600
To: "APRS SIG list   mailing"<aprssig@tapr.org>,
        " DSP-93 Build "<dsp-93@tapr.org>,
        "HF SIG list   mailing"<hfsig@tapr.org>,
        "NETSIG list   mailing"<netsig@tapr.org>,
        "BBS SIG list   mailing"<bbssig@tapr.org>,
        " TAPR/AMSAT DSP "<dsp@tapr.org>,
        "TAPR-BB list   mailing"<tapr-bb@tapr.org>,
        TAPR Regional Freq <regional_freq@tapr.org>,
        " tapr-tnc "<tapr-tnc@tapr.org>, " Spread Spectrum "<ss@tapr.org>
Message-ID: <v03007814af5b3a76bea5@[208.134.134.40]>
Rendered body type: text/plain

TAPR Board of Directors Elections

If you are a member of TAPR, don't forget to take the time to vote!

We have four people running for three places, so it could be your vote that
determines who is on the TAPR Board of Directors.

Deadline for balloting is March 30th, 1997.

This year, members of TAPR can vote either by mail in ballot or over the
Internet using the world wide web. Check your PSR on how to submit your
vote via the web.

Don't lose your PSR, because you will need information contained on your
mail label. If you have problems using the web system, contact Dorothy at
the office and we can look into the issue.

PSRs were mailed on March 5th, so all members should have them by now. If
you have not received your PSR, call or send e-mail to the office and
request a ballot be sent or request the necessary information to allow you
to ballot using the on-line Web page.

**** DEADLINE March 30th! ****

Tucson Amateur Packet Radio
8987-309 E Tanque Verde Rd #337 * Tucson, Az * 85749-9399 * 817-383-0000
---
e-mail: TAPR@TAPR.ORG ftp: ftp.tapr.org   web: <http://www.tapr.org/>
---

24. is anyone using PCDSP yet?

From: Don Elsner <elsner@csd.uwm.edu>
Date: Mon, 24 Mar 1997 11:02:37 -0600 (CST)
To: dsp@tapr.org
Message-ID: <Pine.OSF.3.91.970324105932.21313A-100000@alpha1.csd.uwm.edu>
Rendered body type: text/plain

I know that the order for PCDSP has been completed. I have seen no mention
of it here recently.

Has anyone received their copy of PCDSP?
If so, what are your impressions?

73 - don ks9f

25. [DSP:419] is anyone using PCDSP yet?

From: kl7ev@actis.polarnet.com
Date: 24 Mar 1997 12:05:22 AST
To: dsp@tapr.org
Message-ID: <199703242104.MAA14388@icefog.polarnet.com>
Rendered body type: text/plain

DS>I know that the order for PCDSP has been completed. I have seen no mention
DS>of it here recently.

DS>Has anyone received their copy of PCDSP?
DS>If so, what are your impressions?

DS>73 - don ks9f

I too have seen NOTHING about the PCDSP order, except that it was (is)
to late to get in on the order! It must have been announced prior to my
subscribing to this list. Oh well,

       - Greg -
---
kl7ev
---

26. Re: [DSP:419] is anyone using PCDSP yet?

From: "Donald E. Haselwood" <k4jpj@appstate.campus.mci.net>
Date: Tue, 25 Mar 1997 23:02:04 -0500
To: dsp@tapr.org
Message-ID: <199703260402.XAA27889@aus-a.mp.campus.mci.net>
Rendered body type: text/plain

>
>Has anyone received their copy of PCDSP?
>If so, what are your impressions?
>
>73 - don ks9f

I got my copy, loaded it, and executed it to see that it worked,...and have
some higher priority things I need to get done...so, I can't say much about it.

Regards,
Don, W4GWC

27. DSP Receiver project

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 25 Mar 1997 21:13:36 -0800
To: DSP@tapr.org
Message-ID: <199703260511.VAA22005@PEAK.ORG>
Rendered body type: text/plain

Hi,

Thought I would mention that there is an interesting web page regarding a
DSP-based receiver project;

Please see: www.ao.com/~gnome/ for more details.

73,

Johan KC7WW

28. SOS DSP 2232

From: Christian Hondeville <pc_honde@jet.es>
Date: Wed, 26 Mar 1997 17:04:39 +0100
To: dsp@tapr.org
Message-ID: <199703261708.QAA16489@sun.jet.es>
Rendered body type: text/plain

>Dear friend,
>
>I have still a problem with my DSP 2232.
>Depending on the way I push on the microchip
>(the whiteone 56001zl) on the motherboard, I get the
>following messages;
>
>***2e: DSP software load failed
>***3d: DSP software load failed
>
>It seems like the contacts are wrong or what???
>I cleaned them very carefully but still doesn't work.
>PLEASE, PLEASE if you know what's going on??? or if I could
>replace the socket of the microchip, what could be the best???
>Drop me a line.
>My best to you all
>Christian

29. Re: [DSP:104] Re: AEA DSP-2232 bug HELP!!!

From: Christian Hondeville <pc_honde@jet.es>
Date: Wed, 26 Mar 1997 17:22:21 +0100
To: dsp@tapr.org
Message-ID: <199703261725.QAA16795@sun.jet.es>
Rendered body type: text/plain

>
>Oh God, I forgot about that horrible packaging. I recommended strongly
>against using it (favored the PGA). I now remember having exactly this
>problem and your solution was what I did. I cleaned them and then I
>made
>certain that I put them back in right. They have no pins and just sit
>on the contacts. Any kind of corrosion or corrosive atmosphere can be
>rather deadly to the contacts. Is Christian near the ocean or sea?
>
>Bob

Dear Bob,
Four months ago I still have the same problem with my
DSP 2232. I'm very sure is the contacts with the microchip
56001zl. Depending in the way I push on it I get the following messages,
***2e: DSP software load failed
***3d: DSP software load failed

I cleaned them very carefully many times and I tried
everything and my conclusion is that.Contacts.
Can I replace the socket or what can you suggest to me about this????
Awaiting your news, have my best regards.
Christian

Christian Hondeville Urrutibeheity Tel: +34-4-463 0587
Particular de club 2 Fax: +34-4-463 0587
Las Arenas (48.930) E-mail: pc_honde@jet.es
Spain

30. EVM and UO-11

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sat, 29 Mar 1997 20:38:26 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970329203826.0069a6b8@camel.campbell.edu>
Rendered body type: text/plain

Hi Doug and others,

I just happened to be home for once when UO-11 was above the trees, and I thought I would try the UO11 code in Doug's zipped package for the DSP56002EVM. It worked great! Here is a snip I caught (I used Procomm Plus for Windows set to 19200, N/8/1). I thought others might be inspired too, who knows. I've been having a ball with mine on the 9600 birds mostly.

==========

** UoSAT-OSCAR-11 OBC **

Diary Operating System V3.7

Date: 29 /3 /97 (Saturday)

Time: 20 :32 :15 UTC

Auto Mode is selected

Spin Period: - 363

Z Mag firings: 153

+ SPIN firings: 1

- SPIN firings: 61

SEU count   -21994

RAM WASH pointer at D846

WOD commenced 22 /2 /97 at 0 :0 :5

with channels 40 ,50 ,52 ,63 ,

Last Command: 109 to 0 , 0

Attitude control initiated, mode 3

Satellite News 15th March 1997 from AMSAT-UK

==========

* UK Colloquium *

The 12th AMSAT-UK Colloquium will be held at UoSat from 25th to 27th July with

three days of technical and operational matters only (NO "political" subjects).

Amsat-UK invite authors to submit papers for this event and for the

"Proceedings" document which will be published at the same time. We prefer

authors to present the papers themselves rather than having someone else read

them in the authors' absence, but we also welcome "unpresented" papers for th_

do
cument.

Abstracts should be submitted as soon as possible; the final date for

acceptance is likely to be 15 June 1997 so that the "Proceedings" document be

available to participants.

Submissions should be sent *ONLY* to G3RWL, via the following routes:

Internet e-mail: g3rwl@amsat.org

Packet Radio: G3RWL @ GB7HSN.#32.GBR.EU

Satellite: AO16/19/22/23/25

Terrestrial mail: R W L Limebear G3RWL

60 Willow Road

Enfield EN1 3NQ

United Kingdom.

(I have no fax)

Information about the Colloquium will shortly be available on the World Wide

Web pages at the University of Surrey on:

http://www.ee.surrey.ac.uk/CSER/UOSAT/amateur/colloq97.html

NOTE. SEND ALL OTHER INQUIRIES ABOUT COLLOQUIUM-97 TO THE AMSAT-UK OFFICE:

AMSAT-UK

LONDON E12 5EQ

We apologise for the lack of news recently; this was due to communications

problems between G3RWL and UoSAT.

* Keplers *

Satellite: AO-10

Catalog number: 14129

Epoch time: 97054.50000000

Element set: 500

Inclination: 25.8792 deg

RA of node: 163.0281 deg

Mark L. Hammond [KC4EBR]

31. Software, etc.

From: Robert McGwier <rwmcgwier@worldnet.att.net>
Date: Sat, 29 Mar 1997 18:34:19 -0500
To: hfsig@tapr.org, dsp@tapr.org
Message-ID: <333DA6FB.39A1@worldnet.att.net>
Rendered body type: text/plain

I am sorry about the delay on the software things from me. I just
returned
from five weeks in the middle east. I will be going to Germany in May,
Rome shortly after and some odd places after that. I will do all I can
to get this stuff out during the month of April!

Bob

```
--
*************************************************************************
* Robert W. McGwier, Ph.D. * Mathematician. Hobbies: Computers,
Astronomy*
* 64 Brooktree Rd.         * Amateur Radio, and Golf. Scouts: Advisor
*
* East Windsor, NJ 08520   * Post 995, Troop 5700 Advancement Chair,
*
* (H) 609-443-8963         * Sanhican #2 (Brotherhood), Used to be a
*
* (F) 609-924-3061         * Buffalo (NE-III-120).  George Washington
*
* (W) 609-279-6240         * Council.  Brownie Troop 193
*
*************************************************************************
```

32. evm host serial port . . .

```
From: douglas irving repetto <glmrboy@shoko.CALARTS.EDU>
Date: Sat, 29 Mar 1997 18:20:30 -0800
To: dsp@tapr.org
Message-ID: <l03020900af637c490d03@[156.3.140.234]>
Rendered body type: text/plain
```

hi!

can anyone point me to some code for using the host serial port on the
56002evm? the examples in the docs seem fairly straight forward, but i
haven't been able to get it to work. i've tried using interupts and
polling. no luck with either.

thanks,

douglas

++++++++++

btw:

++++++++++

hi everyone!

we have started a new mailing list at calarts: music-dsp

the focus of this list will be sharing music/sound related dsp (digital
signal processing) strategies, techniques, code, etc. it may be of
interest to anyone working with sound and computers, especially those
involved in developing their own software or building custom hardware.
possible topics could include: writing sound synthesis software for the
mac/pc, writing assembly language dsp code for the motorola 56k chip set,
hacking the ROMs in your favorite synth, building stand-alone dsp boxes,
etc.

there is a tremendous amount of dsp work going on in arts communities
around the world, and this list is an attempt to provide some sort of
centralized information exchange between those communities.

to join the list send mail to:

listproc@shoko.calarts.edu

with this in the body of the message:

subscribe music-dsp your name

for more info you can email me at:
glmrboy@shoko.calarts.edu

please forward this message to anyone you think might be interested. thanks!

douglas

douglas irving repetto (a.k.a. irving bellemead)

email: glmrboy@music.calarts.edu
http://shoko.calarts.edu/~glmrboy

```
*       *       *       *       *       *       *       *

"What a lovely dog!  Does it have a phone?"

*       *       *       *       *       *       *       *
```

33. SOS AEA-DSP 2232

```
From: Christian Hondeville <pc_honde@jet.es>
Date: Sun, 30 Mar 1997 18:07:55 +0100
To: dsp@tapr.org
Message-ID: <199703301708.QAA15771@sun.jet.es>
Rendered body type: text/plain
```

I have still a problem with my DSP 2232.
Depending on the way I push on the microchip
(the whiteone 56001zl) or the motherboard, I get the
following messages;

***2e: DSP software load failed
***3d: DSP software load failed

It seems like the contacts are wrong or what???
I believe not.
I cleaned them very carefully but still doesn't work.
PLEASE, PLEASE if you know what's going on??? or if I could
replace the socket of the microchip, what could be the best???
I checked the cold welds and tracks under the board.
Drop me a line.
My best to you all
Christian

   Christian Hondeville Urrutibeheity   Tel: +34-4-463 0587
   Particular de club 2   Fax: +34-4-463 0587
   Las Arenas (48.930)   E-mail: pc_honde@jet.es
   Spain

34. Re: [DSP:426] Software, etc.

```
From: RLANIER@mailb.harris.com (RLANIER)
Date: Mon, 31 Mar 1997 08:06:54 -0500
To: dsp@tapr.org
Message-ID: <33fb70b0@mailb.harris.com>
Rendered body type: text/plain
```

What do you do that akes you all over the world? Just curious ...

     Tony KE4ATO

```
_____________________________ Reply Separator _____________________________
Subject: [DSP:426] Software, etc.
Author:  dsp@tapr.org at smtp
Date:    3/29/97 5:41 PM


I am sorry about the delay on the software things from me.  I just
returned
from five weeks in the middle east.  I will be going to Germany in May,
Rome shortly after and some odd places after that.  I will do all I can
to get this stuff out during the month of April!

Bob

--
*******************************************************************************
* Robert W. McGwier, Ph.D. * Mathematician. Hobbies: Computers,
Astronomy*
* 64 Brooktree Rd.         * Amateur Radio, and Golf. Scouts: Advisor
*
* East Windsor, NJ 08520   * Post 995, Troop 5700 Advancement Chair,
*
* (H) 609-443-8963         * Sanhican #2 (Brotherhood), Used to be a
*
* (F) 609-924-3061         * Buffalo (NE-III-120).  George Washington
*
* (W) 609-279-6240         * Council.  Brownie Troop 193
*
*******************************************************************************
```

April 1997

Original source file: dsp.9704
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9704

1. DSP work and the Pentium MMX

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 01 Apr 1997 11:30:48 -0800
To: dsp@tapr.org
Message-ID: <199704011927.LAA23832@PEAK.ORG>
Rendered body type: text/plain

Hi,

Just been wondering if anyone has any experience with the new Pentium MMX.
Which tools, compiler, debugger etc.?

I am considering using one of the new MMX motherboards with built-in sound
for an upcoming DSP project.

Thanks in advance,

Johan, KC7WW

---

2. DSP56002EVM download protocol

From: John Melton <john@images.demon.co.uk>
Date: Tue, 01 Apr 1997 19:46:53 +0000
To: dsp@tapr.org
Message-ID: <3341662D.3C019643@images.demon.co.uk>
Rendered body type: text/plain

Hi, now that I have my EVM working, can anyone point me to where I
can get the information to write my own downloader software to run
on Linux?

Thanks,

John Melton g0orx/n6lyt

email: john@images.demon.co.uk

---

3. Re: [DSP:431] DSP56002EVM download protocol

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Tue, 1 Apr 1997 16:37:38 -0500 (EST)
To: dsp@tapr.org
Message-ID: <l03020901af66e802db22@[152.38.1.2]>
Rendered body type: text/plain

Hi John,

I think if you will get Doug N1OWU's package:

ftp://www.tapr.org/tapr/SIG/dsp/recent_uploads/n1owu_11.zip

that the source for what you want is there. There is mention of a Linux
version and files necessary to compile and run, as I recall. I'm at work
and don't have the details handy, but pick thru that file and I think
you'll find what you need.

Keep us posted on your Linux endeavors!

>Hi, now that I have my EVM working, can anyone point me to where I
>can get the information to write my own downloader software to run
>on Linux?
>
>Thanks,
>
>John Melton g0orx/n6lyt
>
>email: john@images.demon.co.uk

Mark L. Hammond [KC4EBR]
Campbell University

---

4. Re: [DSP:431] DSP56002EVM download protocol

From: "Fred M. Spinner" <fred@tekdata.com>
Date: Tue, 1 Apr 1997 16:04:07 -0600 (CST)
To: dsp@tapr.org
Cc: dsp@tapr.org
Message-ID: <Pine.BSF.3.91.970401155827.14733A-100000@tekdata.com>
Rendered body type: text/plain

On Tue, 1 Apr 1997, John Melton wrote:

> Hi, now that I have my EVM working, can anyone point me to where I
> can get the information to write my own downloader software to run
> on Linux?
>
If you get Doug N1OWU's software package from TAPR, he has a Linux
downloader as part of his package. I haven't tried it yet, but his
code has been good so far. Off hand I don't know the exact URL,
but look at my EVM startup pages at http://www.tekdata.com/KA9VAW/EVM
or tapr at http://www.tapr.org and there's links to it..

The downloader is a modified Alef Null DL program. The MS-DOS version works
very well.

Fred M. Spinner, KA9VAW
fred@tekdata.com

5. Re: [DSP:431] DSP56002EVM download protocol

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Tue, 1 Apr 97 17:21:34 CST
To: dsp@tapr.org
Message-ID: <9704012321.AA08409@aa5df.sps.mot.com>
Rendered body type: text/plain

>
> Hi, now that I have my EVM working, can anyone point me to where I
> can get the information to write my own downloader software to run
> on Linux?

6805_dst.asm contains well documented code that is in the micro that
converts the commands from the RS232 link to the OnCE port.

Tim

6. Re: [DSP:434] Re: DSP56002EVM download protocol

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Wed, 02 Apr 1997 09:26:47 +0200
To: dsp@tapr.org
Message-ID: <33420A37.7B3A@ife.ee.ethz.ch>
Rendered body type: text/plain

> > Hi, now that I have my EVM working, can anyone point me to where I
> > can get the information to write my own downloader software to run
> > on Linux?

Jeff Dionne has already written such a loader. There was
a posting in comp.dsp about one month ago, try a news
search engine.

I'm using this program on a Sparc station and it works
nicely.

73s
Tom
--
Thomas (Tom) Sailer   EMail: sailer@ife.ee.ethz.ch
Weinbergstrasse 76   Ham Radio: hb9jnx @ hb9w.che.eu
CH-8408 Winterthur   Phone: ++41 52 222 32 81

7. EVM download software

From: John Melton <john@images.demon.co.uk>
Date: Wed, 02 Apr 1997 18:42:04 +0000
To: dsp@tapr.org
Message-ID: <3342A87C.56545BE5@images.demon.co.uk>
Rendered body type: text/plain

Thanks to all that pointed me to the source in n1owu's zip file - I
don't know

how I missed that!

I actually want to get the loader working with Java to go along with my
satellite software, also written in Java.

Should provide a nice portable package with just a simple native
interface
for the serial port I/O. I have tested it in Windows 95/NT, Linux and
Solaris (SPARC) will need some help on other platforms (OS/2, Mac, ...).

I have also run some of the code on a JavaStation as applets without any
problem. Need to work out how to drive the serial port to connet to the
DSP!

I will be making more of this available soon for others to play with.

73's

John Melton, g0orx/n6lyt

email: john@images.demon.co.uk
       John.Melton@UK.Sun.COM

8. EVM download software

From: Hasch@t-online.de (J□rgen Hasch)
Date: Sat, 05 Apr 1997 16:14:01 -0800
To: dsp@tapr.org
Message-ID: <3346EAC9.3893@t-online.de>
Rendered body type: text/plain

Hello John,

>I actually want to get the loader working with Java to go along with my
>satellite software, also written in Java.

>Should provide a nice portable package with just a simple native
>interface
>for the serial port I/O. I have tested it in Windows 95/NT, Linux and
>Solaris (SPARC) will need some help on other platforms (OS/2, Mac, ...).

I've written a Java / C download program under Windows NT for
motorola CLD files a while ago. Maybe you want to take a look at this.

Available at
http://www.goeppingen.netsurf.de/hompeages/hasch/indexe.html

73's
 Juergen Hasch DG1SCR
 hasch@t-online.de

9. Re: [DSP:437] EVM download software

From: Steve Sampson <ssampson@oklahoma.net>
Date: Sat, 05 Apr 1997 08:44:55 -0600
To: dsp@tapr.org
Message-ID: <33466567.36B4@oklahoma.net>
Rendered body type: text/plain

Jürgen Hasch wrote:
>
> I've written a Java / C download program under Windows NT for
> motorola CLD files a while ago. Maybe you want to take a look at this.
>
> Available at
> http://www.goeppingen.netsurf.de/hompeages/hasch/indexe.html

I tried that page, no joy. Here's one that works though:

        http://www.goeppingen.netsurf.de/~hasch/indexe.html

Steve

10. Re: EVM download software

From: Hasch@t-online.de (J□rgen Hasch)
Date: Sun, 06 Apr 1997 10:31:09 -0700
To: dsp@tapr.org
Message-ID: <3347DDDD.5301@t-online.de>
Rendered body type: text/plain

Steve Sampson wrote:

> > Available at
> > http://www.goeppingen.netsurf.de/hompeages/hasch/indexe.html
>
> I tried that page, no joy. Here's one that works though:
>
>   http://www.goeppingen.netsurf.de/~hasch/indexe.html
>
> Steve

Thanks for the correction, the original page seems to work only
for me.

73's de Juergen

11. Bit Error Rate Tester question for Jeurgen

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 06 Apr 1997 12:41:09 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970406124109.0073799c@camel.campbell.edu>
Rendered body type: text/plain

Hello Juergen,

I have looked at your nice web site and am interested in trying your Bit
Error Rate Tester softare. Unfortunately, I get the following error when
trying to download any of the bertXXX.zip files.

The error I get is:

Not found - file doesn't exist or is read protected [even tried multi]

Could you check the permissions on those files? Your application looks
interesting and I would like to sample it.

Thank you,

Mark L. Hammond   [KC4EBR]

12. Re: Bit Error Rate Tester question

From: Hasch@t-online.de (J□rgen Hasch)
Date: Sun, 06 Apr 1997 17:51:23 -0700
To: dsp@tapr.org
Message-ID: <3348450B.5DE7@t-online.de>
Rendered body type: text/plain

Mark L. Hammond wrote:

> I have looked at your nice web site and am interested in trying your
> Bit Error Rate Tester softare. Unfortunately, I get the following
> error when trying to download any of the bertXXX.zip files.
>
> The error I get is:
>
> Not found - file doesn't exist or is read protected [even tried multi]
>

Sorry for that. The files were there, but with uppercase chars.
When I tested the pages Windows didn't care, the WWW server
where the pages reside does...
Should work now.

 73 de Juergen, DG1SCR

13. Re: [DSP:441] Re: Bit Error Rate Tester question

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Sun, 06 Apr 1997 18:24:58 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970406182458.0071d4a0@camel.campbell.edu>
Rendered body type: text/plain

Thanks Juergen. I have the files now. Now I need to figure out how to use
them! That's half of the fun.

>Sorry for that. The files were there, but with uppercase chars.
>When I tested the pages Windows didn't care, the WWW server

>where the pages reside does...
>Should work now.
>
> 73 de Juergen, DG1SCR
>
>
>

Mark L. Hammond   [KC4EBR]

14. DSP using Sound Blaster 16?

From: BG Packet Gateway <packet@mbox.digsys.bg>
Date: Sun, 13 Apr 1997 14:16:05 +0300
To: dsp@tapr.org
Message-ID: <3.0.32.19970413141339.006a12d0@pop-plovdiv.eunet.bg>
Rendered body type: text/plain

Hi folks,
can anyone point me how to read directly incoming audio data from Sound
Blaster 16 and send it back. I'm trying to make real time DSP under Win95.
I've already make it on PIC16C74, but only for CW signals.
Thanks in advance.
Chris Boudacoff

_______ cut here
_____

Message forwarded by LZ Packet Gateway - LZ1KAZ

Back mail rules:
Messages from the internet should be less then 5K in length. No Attachment
please.

To answer:
          Send mail to the internet address of: packet@mbox.digsys.bg
          The SUBJECT must contain a full packet address.

          For example, mail to my packet address, would have the subject:
          SUBJECT: lz4ic@lz4ic.#pld.bgr.eu

     ... or just replay this message <recommended>
_____
_____
        Mail manager: Chris Boudacoff - LZ4IC

15. Re: DSP using Sound Blaster 16?

From: BG Packet Gateway <packet@mbox.digsys.bg>
Date: Sun, 13 Apr 1997 14:27:12 +0300
To: dsp@tapr.org
Message-ID: <3.0.32.19970413142445.006a395c@pop-plovdiv.eunet.bg>
Rendered body type: text/plain

Hi folks,
it's me again. Sorry but i forgot to turn off the signature in my previous
message. Please ignore it.

Chris Boudacoff

16. Re: [DSP:443] DSP using Sound Blaster 16?

From: Paul Beltrani <beltrani@pixi.com>
Date: Sat, 12 Apr 1997 14:13:30 -1000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970413101330.006867a8@pop-server.hawaii.edu>
Rendered body type: text/plain

At 01:20 AM 4/13/97 -1000, Chris Boudacoff wrote:
> ...
>can anyone point me how to read directly incoming audio data from Sound
>Blaster 16 and send it back. I'm trying to make real time DSP under Win95.
>I've already make it on PIC16C74, but only for CW signals.
>...

Get the "Soundblaster Series Hardware Programming Guide" from the Creative
Labs web site. http://www.creaf.com/zonemenu.html. It will give you all
the hardware details you will need to program the card directly. The site
also has many demo programs and code examples.

I would be interested in any info on developing code to interface with the
Win95 device driver.
I was unable to find anything specific to this at either the Creative Labs
or Microsoft sites. For example, is there a Win95 sound API that would be
suitable for simple audio DSP tools?

- Paul Beltrani

17. (Q)Complex to real conversion

From: "Helmut Strickner" <Helmut.Strickner@gil.com.au>
Date: Sat, 19 Apr 1997 14:36:12 +1000
To: dsp@tapr.org
Message-ID: <199704190434.OAA27770@iccu6.ipswich.gil.com.au>
Rendered body type: text/plain

Has anyone implemented complex to real conversion on the DSP56K
or can give me some assistance in the form of a minimal mathematical
example?
The signal is a baseband centered complex IQ signal generated by a
Harris 50016. The alias free bandwidth is 0 to 20KHz approx.

The things I remember are that I need an NCO or local oscillator to
generate sin and cos signals which are multiplied and summed with the
complex signal. The result is then passed through a bandpass filter
and output to the codec on the EVM board.
To start with I would like to implement SSB/AM demodulation with
FM to follow later.
Would anyone care to comment and give me some help and more insight
into this complex matter, please?

Regards

Helmut Strickner VK4STR

18. Re: [DSP:446] (Q)Complex to real conversion

From: Charles Brain <chbrain@dircon.co.uk>
Date: Sat, 19 Apr 1997 08:35:08 +0100
To: dsp@tapr.org
Message-ID: <335875AC.FE1@dircon.co.uk>
Rendered body type: text/plain

Helmut Strickner wrote:
>
> Has anyone implemented complex to real conversion on the DSP56K
> or can give me some assistance in the form of a minimal mathematical
> example?
>
> Helmut Strickner VK4STR

Hello Helmut,

I do not quite understand your question. To convert complex to real
just take either the I or the Q component and throw the other away.

The second paragraph of your question describes how to convert a
real signal into a complex signal with a frequency shift.

I am sorry if I have missed something!

Regards Charles G4GUO.

19. Re: [DSP:447] Re: (Q)Complex to real conversion

From: "Steve Sampson" <ssampson@oklahoma.net>
Date: Sat, 19 Apr 1997 12:02:19 -0500
To: <dsp@tapr.org>
Message-ID: <199704191711.MAA10362@dns.okc>
Rendered body type: text/plain

> Has anyone implemented complex to real conversion on the DSP56K
> or can give me some assistance in the form of a minimal mathematical
> example?
>
>
>I do not quite understand your question. To convert complex to real
>just take either the I or the Q component and throw the other away.

Don't do that!

Here's the formula: real = sqr(i^2 + q^2)

Steve
"Pythagorean do'ntcha know"

20. Re: [DSP:448] Re: (Q)Complex to real conversion

From: Charles Brain <chbrain@dircon.co.uk>
Date: Sat, 19 Apr 1997 18:45:02 +0100
To: dsp@tapr.org
Message-ID: <3359049E.5D40@dircon.co.uk>
Rendered body type: text/plain

Steve Sampson wrote:
>
> > Has anyone implemented complex to real conversion on the DSP56K
> > or can give me some assistance in the form of a minimal mathematical
> > example?
> >
> >
> >I do not quite understand your question. To convert complex to real
> >just take either the I or the Q component and throw the other away.
>
> Don't do that!
>
> Here's the formula: real = sqr(i^2 + q^2)
>
> Steve
> "Pythagorean do'ntcha know"

That gives you the magnitude. so if you do it on a
constant sine wave you will just get a DC component.
That isn't the question that was asked.

- Charles

21. Re: [DSP:449] Re: (Q)Complex to real conversion

From: Robert McGwier <rwmcgwier@worldnet.att.net>
Date: Sat, 19 Apr 1997 20:17:50 -0400
To: dsp@tapr.org
Message-ID: <335960AD.79B3@worldnet.att.net>
Rendered body type: text/plain

Charles Brain wrote:
>
> Steve Sampson wrote:
> >
> > > > Has anyone implemented complex to real conversion on the DSP56K
> > > > or can give me some assistance in the form of a minimal mathematical
> > > > example?
> > > >
> > > >
> > > >I do not quite understand your question. To convert complex to real
> > > >just take either the I or the Q component and throw the other away.
> > >
> > > Don't do that!
> > >
> > > Here's the formula: real = sqr(i^2 + q^2)
> > >
> > > Steve
> > > "Pythagorean do'ntcha know"
>
> That gives you the magnitude. so if you do it on a
> constant sine wave you will just get a DC component.
> That isn't the question that was asked.
>
> - Charles

Charles is right when he says that Steve is only giving you the
magnitude
but the answer is not nearly so simple as "take the real part". You may
have represented a baseband signal necessarily as complex. Demodulated
PSK modems for examples are complex signals at baseband. If you take
the real part and toss the imaginary away, you have destroyed the signal
and you cannot recover from this. If the signal you desire has little
(better yet NO) energy near zero (frequency) then you can get away with
"take the real part" otherwise, you must modulate the signal with a
complex sinusoid to move those components at zero away from zero. THEN
you can take the real part.

```
--
*************************************************************************
* Robert W. McGwier, Ph.D. * Mathematician. Hobbies: Computers,
Astronomy*
* 64 Brooktree Rd.         * Amateur Radio, and Golf. Scouts: Advisor
*
* East Windsor, NJ 08520   * Post 995, Troop 5700 Advancement Chair,
*
* (H) 609-443-8963         * Sanhican #2 (Brotherhood), Used to be a
*
* (F) 609-924-3061         * Buffalo (NE-III-120).  George Washington
*
* (W) 609-279-6240         * Council.  Brownie Troop 193
*
*************************************************************************
```

22. Re: [DSP:447] Re: (Q)Complex to real conversion

From: "Helmut Strickner" <Helmut.Strickner@gil.com.au>
Date: Sun, 20 Apr 1997 13:08:05 +1000
To: dsp@tapr.org
Message-ID: <199704200306.NAA14492@iccu6.ipswich.gil.com.au>
Rendered body type: text/plain

Hello Charles,

> >
> > Has anyone implemented complex to real conversion on the DSP56K
> > or can give me some assistance in the form of a minimal mathematical
> > example?
> >
> > Helmut Strickner VK4STR
>
> Hello Helmut,
>
> I do not quite understand your question. To convert complex to real
> just take either the I or the Q component and throw the other away.
>
> The second paragraph of your question describes how to convert a
> real signal into a complex signal with a frequency shift.
>
> I am sorry if I have missed something!
>
> Regards Charles G4GUO.
>
>

Thank you for putting me on the right track here, Charles.
Then it really is that simple, just put the I signal through a
suitable bandpass filter ?

Another question:

My data is oversampled by 2, the samples arrive at fs/2 (codec), the
codec runs at fs. Now I have to interpolate to get one sample to the
codec in each frame. In other words I need to interpolate in the time
domain (I think) since the data is correct in the frequency domain.
Wouldn't I need to reconstruct the original signal and resample at
the codec SR?
This is probably more involved than my first question.

Thanking you for your comments

Helmut VK4STR

23. Re: [DSP:446] (Q)Complex to real conversion

From: W4OQM@aol.com
Date: Sun, 20 Apr 1997 17:55:19 -0400 (EDT)
To: dsp@tapr.org
Message-ID: <970420175517_-798589200@emout01.mail.aol.com>
Rendered body type: text/plain

Helmut,

There are some excellent examples of this in a program called SLOWBPSK.ASM.
 The receiver process starts at line 541. The multiplication of the carrier
with the incomming signal to form the I and Q signals happens in a function
called IQ which is called at line 599. The function IQ itself is a good
example of using the sine table. The SLOWBPSK.ASM code is not very "easy

reading"; but if you're persistent, this program is a rich source of examples
and learning.

If you don't already have SLOWBPSK.ASM, I believe it can be downloaded from
TAPR. Originally I found this in EVM56K2A.ZIP.

Regards,
Charlie - W4OQM

24. Information TS790A

From: Christian Hondeville <pc_honde@arrakis.es>
Date: Wed, 30 Apr 1997 15:15:33 +0100
To: dsp@tapr.org
Message-ID: <199704301415.QAA27234@arrakis.es>
Rendered body type: text/plain

Dear friends,

I would like somebody could tell me how can I do to
lift up the TX audio from the TS790A. Because the audio
level that comes from the DSP is OK.
I made the modification, TX audio at the cathode side of
the D81.
Still is too low to operate the satellite from my DSP-TS790A-
Satellite.
Thanks for your information. Please drop me a line.
My best to all of you.
Pedro/EA2AFI

   Christian Hondeville Urrutibeheity   Tel: +34-4-463 0587
   Particular de club 2   Fax: +34-4-463 0587
   Las Arenas (48.930)   E-mail: pc_honde@arrakis.es
   Spain

25. Re: [DSP:453] Information TS790A

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Wed, 30 Apr 1997 11:39:15 -0400
To: dsp@tapr.org
Message-ID: <l03102800af8d174d4f6c@[152.38.1.2]>
Rendered body type: text/plain

Hi Pedro,

What value of resistor did you use to connect to D81? Have you tried to
change the value of this resistor? I think it calls for a 1K resistor, but
I will check my records tonite to see for certain what value I used on my
TS-790A.

Are you sure the problem is too little audio, and not too MUCH audio? Just
a thought.

>Dear friends,
>
>I would like somebody could tell me how can I do to
>lift up the TX audio from the TS790A. Because the audio
>level that comes from the DSP is OK.
>I made the modification, TX audio at the cathode side of
>the D81.
>Still is too low to operate the satellite from my DSP-TS790A-
>Satellite.
>Thanks for your information. Please drop me a line.
>My best to all of you.
>Pedro/EA2AFI

>   Christian Hondeville Urrutibeheity   Tel: +34-4-463 0587
>   Particular de club 2   Fax: +34-4-463 0587
>   Las Arenas (48.930)   E-mail: pc_honde@arrakis.es
>   Spain

Mark L. Hammond [KC4EBR]
Campbell University

26. Re: [DSP:453] Information TS790A

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Wed, 30 Apr 1997 11:44:29 -0400
To: dsp@tapr.org
Message-ID: <l03102801af8d1904b6a4@[152.38.1.2]>
Rendered body type: text/plain

Actually, I used a 4.7K resistor to the banded end of D81 for the DSP-93 (I had used a 1k resistor for the TAPR 9600 modem board).

Details of this are in the DSP-93 operations manual at www.tapr.org on the DSP-93 page.

>Dear friends,
>
>I would like somebody could tell me how can I do to
>lift up the TX audio from the TS790A. Because the audio
>level that comes from the DSP is OK.
>I made the modification, TX audio at the cathode side of
>the D81.
>Still is too low to operate the satellite from my DSP-TS790A-
>Satellite.
>Thanks for your information. Please drop me a line.
>My best to all of you.
>Pedro/EA2AFI
>   Christian Hondeville Urrutibeheity   Tel: +34-4-463 0587
>   Particular de club 2   Fax: +34-4-463 0587
>   Las Arenas (48.930)   E-mail: pc_honde@arrakis.es
>   Spain

Mark L. Hammond [KC4EBR]
Campbell University

May 1997

Original source file: dsp.9705
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9705

1. EVM56K with Win95

From: "Steven R. Bible" <srbible@gate.net>
Date: Mon, 05 May 1997 23:11:38 -0400
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970505231138.0069c258@pop.gate.net>
Rendered body type: text/plain

I was trying to get the Domain Technology Debugger to run on a new Toshiba Satellite laptop I purchased. The laptop runs Windows 95. The strange thing is that I can assemble a program using the assembler but I can't get the Domain Technology Debugger to run right. It will not load a program. You do not see the familar fuel gage scanning across the screen. If I say GO 0 the red LED goes out and if I say FORCE R the LED comes one. I tried envoking EVM56K with the -c1 switch to force COM1 but it still did not work. I tried shutting down and restarting in DOS. I tried a DOS window. Nothing seems to work. Everything works fine on my older 386 running DOS 6.0.

Has anyone else run into this problem? Is there a solution?

Thanks,

- Steve, N7HPR
(n7hpr@tapr.org)

2. Re: [DSP:456] EVM56K with Win95

From: Rob Frohne <frohro@wwc.edu>
Date: Mon, 5 May 1997 22:20:44 -0700 (PDT)
To: dsp@tapr.org
Message-ID: <199705060520.WAA26653@shasta.wwc.edu>
Rendered body type: text/plain

Hi Steve,

I haven't run into the same problem, but it works for me using Windows 95 on a Mac DOS card.

Rob
>
> I was trying to get the Domain Technology Debugger to run on a new Toshiba
> Satellite laptop I purchased. The laptop runs Windows 95. The strange
> thing is that I can assemble a program using the assembler but I can't get
> the Domain Technology Debugger to run right. It will not load a program.
> You do not see the familar fuel gage scanning across the screen. If I say
> GO 0 the red LED goes out and if I say FORCE R the LED comes one. I tried
> envoking EVM56K with the -c1 switch to force COM1 but it still did not
> work. I tried shutting down and restarting in DOS. I tried a DOS window.
> Nothing seems to work. Everything works fine on my older 386 running DOS
> 6.0.
>
> Has anyone else run into this problem? Is there a solution?
>
> Thanks,
>
> - Steve, N7HPR
> (n7hpr@tapr.org)
>
>

3. Re: [DSP:456] EVM56K with Win95

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Tue, 6 May 97 08:50:10 CDT
To: dsp@tapr.org
Message-ID: <9705061350.AA13634@aa5df.sps.mot.com>
Rendered body type: text/plain

Steve,

We have update software for the 56303/302 EVM debugger, but nothing for the 56002EVM. I suggest contacting Domain Technologies at

Domain Technologies, Inc.
Ph: (972) 578-1121

Fax: (972) 578-1086
info@domaintec.com
http://www.domaintec.com

Let us know the results...

73,
Tim

4. New DSP modems available

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 06 May 1997 08:03:13 -0800
To: dsp@tapr.org, hfsig@tapr.org
Message-ID: <199705061455.HAA00995@PEAK.ORG>
Rendered body type: text/plain

Hi folks,

Exciting new modems!

With Pawel's permission, I have uploaded his latest contributions:

NEWQPSK.ASM ----- Latest version of the 15-tone parallel 3000+ bps HF modem
FSK1200A.ASM ---- Heterodyne-based 1200 bps VHF Packet modem (very nicely done.)

As usual, these contain source code with a wealth of good ideas. It is up to
you to make your own modifications as needed, assemble the files, and run
them. If you use a standard EVM and BIOS, the code will run as is.

As soon as Tim has moved the files, please look for the package "MODEMS.ZIP"
in the "recent_uploads" file area of the TAPR DSP area.

Thanks Pawel!

Enjoy, 73

Johan

5. Re: [DSP:456] EVM56K with Win95

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 06 May 1997 08:03:10 -0800
To: dsp@tapr.org
Message-ID: <199705061454.HAA00981@PEAK.ORG>
Rendered body type: text/plain

Steve,

>I was trying to get the Domain Technology Debugger to run on a new Toshiba
>Satellite laptop I purchased. The laptop runs Windows 95. The strange
>thing is that I can assemble a program using the assembler but I can't get
>the Domain Technology Debugger to run right. It will not load a program.
>You do not see the familar fuel gage scanning across the screen. If I say
>GO 0 the red LED goes out and if I say FORCE R the LED comes one. I tried
>envoking EVM56K with the -c1 switch to force COM1 but it still did not
>work. I tried shutting down and restarting in DOS. I tried a DOS window.
>Nothing seems to work. Everything works fine on my older 386 running DOS
>6.0.
>
>Has anyone else run into this problem? Is there a solution?
>
>Thanks,
>
> - Steve, N7HPR
> (n7hpr@tapr.org)
>
>

First thing would be to see whether Win95 controls you serial port
correctly. You do that by looking at the Device Manager. Double click "My
Computer" while holding "ALT" down. Then select the tabs called Device
Manager, then Ports. Does it show two serial ports? One should be assigned
to your mouse, the other to your COM2, or something like that. If not,
better install them all.

The next thing to check is whether you have something like Winsock or like
that is controlling the COM port. I find that if I have Trumpet Winsock DLL
loaded, it grabs the serial port and the debugger won't start. When you
terminate that, all is OK.

Otherwise, I have found both the Windows and DOS based debuggers to run
nicely under WIN95 - I use the Windows-based debugger almost daily. Hope
this helps.

Johan

6. Re: [HFSIG:2086] New DSP modems available

From: Tim <tim@acca.nmsu.edu>
Date: Tue, 6 May 1997 13:19:07 -0600 (MDT)
To: hfsig@tapr.org
Cc: dsp@tapr.org
Message-ID: <Pine.SUN.3.95.970506131812.12552A-100000@acca>
Rendered body type: text/plain

On Tue, 6 May 1997, Johan Forrer wrote:

> Hi folks,
>
> Exciting new modems!
>
> NEWQPSK.ASM ----- Latest version of the 15-tone parallel 3000+ bps HF modem
> FSK1200A.ASM ---- Heterodyne-based 1200 bps VHF Packet modem (very nicely done.)
>
> As soon as Tim has moved the files, please look for the package "MODEMS.ZIP"
> in the "recent_uploads" file area of the TAPR DSP area.

Done!!!

73
Tim
AA5DF

7. Re: [DSP:456] EVM56K with Win95

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Tue, 06 May 1997 22:09:05 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970506220905.006aa9a8@camel.campbell.edu>
Rendered body type: text/plain

Hi Steve,

Here is an update: until just moments ago, I was NEVER able to get the
Windows debugger to load, not even in the demo mode with the -d option. I
emailed Domain Tech. back and forth several times, still no joy. I always
got this:

D:\EVM56KW>evm56kw -d
A device attached to the system is not functioning.

I basically had given up on the Windoze version, until this afternoon I
gave it another shot. I went to the Domain Tech web page and grabbed the
latest version of the EVM56KW.EXE file at

ftp://ftp.domaintec.com/domtech/evm002.zip

and also grabbed the .dll files at the bottom of the same page as well.

ftp://ftp.domaintec.com/domtech/linkdll1.zip
ftp://ftp.domaintec.com/domtech/linkdll2.zip

The new EVM56KW.EXE file did not make it work; still the same error. When
I copied over my existing files with the ones in the the above linkdllx.zip
files above (same size and same date of each file, mind you), IT WORKED! I
even did an upload and burned my EEPROM. (I was just happy to see the
program run at all).

I had reinstalled comports, the software, etc until I was blue in the face.
Evidently, one of the files on my disk that came with my EVM must be
corrupt. Whether it is specifically MY disks, or the entire batch, who
knows.

Maybe some of you that are having/have had problems with the Windows
Debugger might find a fix like I did. At least you may all want to grab
the update to EVM56K.exe; the date of the file is 4/25/97.

At 22:16 5/5/97 -0500, you wrote:
>I was trying to get the Domain Technology Debugger to run on a new Toshiba

>Satellite laptop I purchased. The laptop runs Windows 95. The strange
//>
>Has anyone else run into this problem? Is there a solution?
>
>Thanks,
>
> - Steve, N7HPR
> (n7hpr@tapr.org)

Mark L. Hammond   [KC4EBR]

8. Re: [DSP:462] Re: EVM56K with Win95

From: "Steven R. Bible" <srbible@gate.net>
Date: Tue, 06 May 1997 22:10:14 -0400
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970506221014.006dd070@pop.gate.net>
Rendered body type: text/plain

Yes! It works. And the windows version of the debugger is much nicer than the DOS version. I followed Mark's directions below. I basicly downloaded the three zip files, unzip them all in your EVM directory, and run EVM56K.EVE. You need to have your EVM powered up for the program to find it.

Now, where is the HELP file? I clicked on help and the EVM56K.HLP file is not there. Otherwise there is no manual. Perhaps the help file is on the ftp site?

- Steve N7HPR

At 05:13 PM 5/6/97 -0500, you wrote:
>Hi Steve,
>
>Here is an update: until just moments ago, I was NEVER able to get the
>Windows debugger to load, not even in the demo mode with the -d option. I
>emailed Domain Tech. back and forth several times, still no joy. I always
>got this:
>
>D:\EVM56KW>evm56kw -d
>A device attached to the system is not functioning.
>
>I basically had given up on the Windoze version, until this afternoon I
>gave it another shot. I went to the Domain Tech web page and grabbed the
>latest version of the EVM56KW.EXE file at
>
>ftp://ftp.domaintec.com/domtech/evm002.zip
>
>and also grabbed the .dll files at the bottom of the same page as well.
>
>ftp://ftp.domaintec.com/domtech/linkdll1.zip
>ftp://ftp.domaintec.com/domtech/linkdll2.zip
>
>The new EVM56KW.EXE file did not make it work; still the same error. When
>I copied over my existing files with the ones in the the above linkdllx.zip
>files above (same size and same date of each file, mind you), IT WORKED! I
>even did an upload and burned my EEPROM. (I was just happy to see the
>program run at all).
>
>I had reinstalled comports, the software, etc until I was blue in the face.
>Evidently, one of the files on my disk that came with my EVM must be
>corrupt. Whether it is specifically MY disks, or the entire batch, who
>knows.
>
>Maybe some of you that are having/have had problems with the Windows
>Debugger might find a fix like I did. At least you may all want to grab
>the update to EVM56K.exe; the date of the file is 4/25/97.
>
>
>At 22:16 5/5/97 -0500, you wrote:
>>I was trying to get the Domain Technology Debugger to run on a new Toshiba
>>Satellite laptop I purchased. The laptop runs Windows 95. The strange
>//>
>>Has anyone else run into this problem? Is there a solution?
>>
>>Thanks,
>>

>> - Steve, N7HPR
>> (n7hpr@tapr.org)
>
>
>
>Mark L. Hammond   [KC4EBR]
>
>

 - Steve, N7HPR
 (n7hpr@tapr.org)

9. Radio interface

From: "Steven R. Bible" <srbible@gate.net>
Date: Tue, 06 May 1997 22:43:38 -0400
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970506224338.006c1564@pop.gate.net>
Rendered body type: text/plain

Now that I can assemble and debug programs again (thanks Mark), the next
step is getting PSK and G3RUH modems running for the pacsats. So I need to
build a radio interface. In reading Doug's N1OWU documentation he
describes how his interface works, i.e. V/UHF radio input on the left
channel and HF on the right. I have a couple of questions...

- is there a schmatic?

- Which bits on Port B control
  - the relay switching audio w/ FM discriminator
  - UP/DOWN mic clicks

- How does Doug's method compare with Johan's? Are they the same?

Thanks,

 - Steve, N7HPR
 (n7hpr@tapr.org)

10. Re: [DSP:462] Re: EVM56K with Win95

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Wed, 7 May 97 09:20:33 CDT
To: dsp@tapr.org
Message-ID: <9705071420.AA17528@aa5df.sps.mot.com>
Rendered body type: text/plain

Here's an update:

We did find a problem with the 56811EVM debugger under Windows 95. It
seems that if you were to start the debugger, then exit, any time
thereafter the debugger will NOT be able to use the COM port. We
understood that the same COM port driver was used in the other
debuggers as well (56002, 56303, 56007, 56009, etc), and so this may be
the reason for the update.

This did not happen on all systems operating Windows 95 - for example
my two PCs (home and work) do not exhibit the problem.

Again, in this situation, the debugger would start and talk to the EVM
once, but after exiting the debugger, you would not be able to get it
to work again until you restart Windows 95.

73
Tim

11. Re: [DSP:462] Re: EVM56K with Win95

From: "Frederick M. Spinner" <fred@tekdata.com>
Date: Wed, 7 May 1997 10:54:34 -0500 (CDT)
To: dsp@tapr.org
Message-ID: <Pine.LNX.3.95.970507105134.1698A-100000@tekdata.com>
Rendered body type: text/plain

On Tue, 6 May 1997, Mark L. Hammond wrote:

> Hi Steve,
>
> Here is an update: until just moments ago, I was NEVER able to get the
> Windows debugger to load, not even in the demo mode with the -d option. I
> emailed Domain Tech. back and forth several times, still no joy. I always

> got this:
...
>
> I had reinstalled comports, the software, etc until I was blue in the face.
> Evidently, one of the files on my disk that came with my EVM must be
> corrupt. Whether it is specifically MY disks, or the entire batch, who
> knows.
>
Mine worked out of the box, but only after I had to completely
(uninstall/reinstall, reboot 72 times, search for hardware and other
wonderful Bill Gates stuff.) reinstall ALL of my serial ports in Win95.

Also, if you run the DOS debugger from a Win95 DOS box, until you close
that DOS box (not just the debugger)-- it locks the com port out for the
windows debugger. Keep this in mind.

> Maybe some of you that are having/have had problems with the Windows
> Debugger might find a fix like I did. At least you may all want to grab
> the update to EVM56K.exe; the date of the file is 4/25/97.

Fred M. Spinner, KA9VAW
fred@tekdata.com

12. Re: [DSP:466] Re: EVM56K with Win95

From: Mike Murphree <n4cnw@ibm.net>
Date: Wed, 07 May 1997 13:19:32 -0400
To: dsp@tapr.org
Message-ID: <3370B9A4.6833@ibm.net>
Rendered body type: text/plain

Frederick M. Spinner wrote:

> Mine worked out of the box, but only after I had to completely
> (uninstall/reinstall, reboot 72 times, search for hardware and other
> wonderful Bill Gates stuff.) reinstall ALL of my serial ports in Win95.

After about 4 years of experience with it, OS/2 is about 4 times as bad.
The Domain Tech won't run under an OS/2 DOS box (not in real-time
anyway).

> Also, if you run the DOS debugger from a Win95 DOS box, until you close
> that DOS box (not just the debugger)-- it locks the com port out for the
> windows debugger. Keep this in mind.

This seems to be true of *any* Win95 DOS box on my system regardless as
to
whether or not anything has accessed the serial ports. Does anyone know
if
a STB 4-COM board will work under Win95 in the shared interrupt mode?
I'd like
to put it in!

73
Mike N4CNW

13. more EVM56K/Win95 and DOS port issues--solutions?

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Wed, 07 May 1997 18:44:42 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970507184442.006d06ec@camel.campbell.edu>
Rendered body type: text/plain

Hi guys,

I have an STB 4COM board in my machine. It gives me 6 com ports. You can
can't TRULY share IRQs, but you CAN use them one at a time (different port
addresses, same IRQ). It is still better than a mechanical switch box.

As for the port availability issue, I think part of the magic of this has
to do with the \windows\system.ini file. There is a line that addresses
the issue of when to make the port available for use between Windows and
DOS sessions. I can load the DOS debugger in a DOS box, exit the debugger,
keep the DOS box open. Now, go load the Windows debugger; it talks to the
EVM no sweat. So, it is possible to not have the port get locked in a DOS
box. (this is espcially useful for doing things in Wisp32 with scheduled
events in a DOS box, etc. I use this all of the time for loading my EVM
with the correct modem before a pass, then running FODTRACK for doppler
correction in the same DOS box. Then Wisp32 loads up and uses the same
COM2 EVM port for the data while the DOS box is still open running FODTRACK.)

If you load them BOTH, basically Windows asks "which application do you
want to use COM2". Messy, but it is at least polite about it.

Here is a snip from my \windows\system.ini file. I've got 6 ports, some
IRQs are shared. The parameters near the end tell Windows about letting go
of the ports between DOS sessions/Windows sessions, etc. My stuff seems to
work great with these settings; naturally, reboot after making the changes:

```
[386Enh]
MaxCOMPort=10
COM1Irq=4
COM1Base=03F8
COM2Irq=3
COM2Base=02F8
COM3Irq=10
COM3Base=03E8
COM4Irq=11
COM4Base=02E8
COM5Irq=11
COM5Base=01E8
COM6Irq=12
COM6Base=02A8
Com1AutoAssign=1
Com2AutoAssign=1
Com3AutoAssign=1
Com4AutoAssign=1
Com5AutoAssign=1
Com6AutoAssign=1
COMIRQSharing=true
```

Try some of these. I've seen a mail message describing what the value of
"1" means, but I can't find it. Something like, wait one second then try
to turn the port over. I think this will fix the lock out problems.

> Also, if you run the DOS debugger from a Win95 DOS box, until you close
>> that DOS box (not just the debugger)-- it locks the com port out for the
>> windows debugger. Keep this in mind.
>
>This seems to be true of *any* Win95 DOS box on my system regardless as
>to
>whether or not anything has accessed the serial ports. Does anyone know
>if
>a STB 4-COM board will work under Win95 in the shared interrupt mode?
>I'd like
>to put it in!
>
>73
>Mike N4CNW
>
>
>

Mark L. Hammond   [KC4EBR]

14. Re: [DSP:468] more EVM56K/Win95 and DOS port issues--solutions?

From: "Donald E. Haselwood" <k4jpj@appstate.campus.mci.net>
Date: Wed, 07 May 1997 16:59:30 -0400
To: dsp@tapr.org
Message-ID: <199705072059.QAA12009@aus-d.mp.campus.mci.net>
Rendered body type: text/plain

At 01:45 PM 5/7/97 -0500, you wrote:
>Hi guys,
>
>I have an STB 4COM board in my machine. It gives me 6 com ports. You can
>can't TRULY share IRQs, but you CAN use them one at a time (different port
>addresses, same IRQ). It is still better than a mechanical switch box.
.....
>Mark L. Hammond   [KC4EBR]

Mark,

I'm curious about the statement "...can't TRULY share IRQs..." I was under
the impression that it would be possible to have "x" com ports all sharing
the same IRQ (different port addresses of course), where the interrupt

routine would poll the ports to service the port(s) pulling the IRQ line. I
have a board "PCCOM" (I think that's the name; got it from JDR a few years
ago) that *appears* to do that. It adds four ports and takes one IRQ. The
manual says the device driver can handle up to 24 ports on one IRQ.
Unfortunately the card I have has 16450's which are do not have buffers and
I get overrun errors when running applications in Windows 3.11 (at least I
notice it when using the Kantronics KAM). IRQ sharing under Windows 95
might not be possible; I don't know.

While not a DSP issue, per se, the serial port situation always seems to
come up for amateur projects. I counted 10 things that use a serial port,
the EVM & DSP-93 amongst them. I do a lot of plugging/unplugging...and keep
an eye open for a "good" solution.

Don, W4GWC

15. DSP and, uh, serial ports (eh-ehmmmm)

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Wed, 07 May 1997 23:04:20 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970507230420.006bfce8@camel.campbell.edu>
Rendered body type: text/plain

If anyone objects to the discussion of serial ports on the reflector, just
say so and we can take it private.

>
>I'm curious about the statement "...can't TRULY share IRQs..." I was under
>the impression that it would be possible to have "x" com ports all sharing
>the same IRQ (different port addresses of course), where the interrupt
>routine would poll the ports to service the port(s) pulling the IRQ line. I
>have a board "PCCOM" (I think that's the name; got it from JDR a few years
>ago) that *appears* to do that. It adds four ports and takes one IRQ. The
>manual says the device driver can handle up to 24 ports on one IRQ.

The STB 4COM board is a rather, er, stupid $100 board (what mine cost). It
has about 100 jumpers (oh, $1 per jumper maybe???!) on it. It has no
software drivers. It simply supplies 4 com ports (16550s) at just about
whatever IRQ or address you want. You have to jumper the puppy and get it
right. The OS you are using has to find the ports and use them.
Therefore, with Win95 it is not able to have more than one port using the
same IRQ at the same time (well, at least I haven't been successful;
presumably making the Com1AutoAssign=0 statment might allow more than one
thing to access it at a time, but I've not been that brave.

I have a managed port on my BSDI box at work that is by Cyclom. It has 16
serial ports, all 16550s, one ISA card, one IRQ, one address; expandable to
32 ports by daisey chain. It has a RISC processor on board that divies out
the data between the 16 DB25 connectors. However, it is about a $500 box.
It did come with Win95 drivers that I've never looked at. Too rich for my
wallet for my shack.

I think the 16450's might give you fits on a good 9600 satellite pass with
the serial connection at 19.2K.

>Unfortunately the card I have has 16450's which are do not have buffers and
>I get overrun errors when running applications in Windows 3.11 (at least I
>notice it when using the Kantronics KAM). IRQ sharing under Windows 95
>might not be possible; I don't know.
>
>While not a DSP issue, per se, the serial port situation always seems to
>come up for amateur projects. I counted 10 things that use a serial port,
>the EVM & DSP-93 amongst them. I do a lot of plugging/unplugging...and keep
>an eye open for a "good" solution.
>
>Don, W4GWC

Yep, me too. Maybe the USB port will be our salvation. Time will tell.

Mark L. Hammond   [KC4EBR]

16. Re: [DSP:469] Re: more EVM56K/Win95 and DOS port issues--solutions?

From: Lyle Johnson <lylej@azstarnet.com>
Date: Wed, 07 May 1997 19:37:05 -0700
To: dsp@tapr.org
Message-ID: <3.0.32.19970507190924.007158bc@pop.azstarnet.com>

Rendered body type: text/plain

Don,

Hold onto your hat, USB is coming to a PC near you! You should then be
able to get a PCI-USB card, or an ISA-USB card, and hang lots of USB
peripherals on your PC. And some entirprising ham will make a cheap $10
USB-async serial port convertor and freeware drivers so you can hang all
those serial devices on your PC (until they all come with Ethernet
conenctors...).

Cheers,

Lyle

17. Re: [DSP:471] Re: more EVM56K/Win95 and DOS port

From: Mike Murphree <n4cnw@ibm.net>
Date: Thu, 08 May 1997 10:02:51 -0400
To: dsp@tapr.org
Message-ID: <3371DD0B.5B07@ibm.net>
Rendered body type: text/plain

Lyle Johnson wrote:
>
> Don,
>
> Hold onto your hat, USB is coming to a PC near you! You should then be
> able to get a PCI-USB card, or an ISA-USB card, and hang lots of USB
> peripherals on your PC. And some entirprising ham will make a cheap $10
> USB-async serial port convertor and freeware drivers so you can hang all
> those serial devices on your PC (until they all come with Ethernet
> conenctors...).

I've got quite a stock of existing microcontroller/DSP evaluation kits
that use parallel ports too. This is one of the reason I always keep a
PC around that has plain DOS installed with standard I/O ports. A lot of
these kits expect to write direct to the port which will hose up most
convertors too. I did find a site that has information on adding
additional
com ports and interrupt sharing for nearly all of the major and
experimental
OSes available on the PC. Look under the technical support section at
http://www.byterunner.com   (I have no affiliation with this company).

73
Mike

> Cheers,
>
> Lyle

18. DSP and, uh, serial ports

From: "Donald E. Haselwood" <k4jpj@appstate.campus.mci.net>
Date: Thu, 08 May 1997 22:47:57 -0400
To: dsp@tapr.org
Message-ID: <199705090247.WAA19849@aus-d.mp.campus.mci.net>
Rendered body type: text/plain

Thanks for the reponses on serial ports. I was not aware of USB, so I'll
see how that develops (and put some of my work-around ideas on the back
burner). Now back to dsp'ing.

Don, W4GWC

19. DSP56002EVM Radio Interface

From: "Steven R. Bible" <srbible@gate.net>
Date: Sat, 10 May 1997 21:00:46 -0400
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970510210046.006975f4@pop.gate.net>
Rendered body type: text/plain

DSP56002EVM Radio Interface

I've been studying the schematics for the EVM and read through the N1OWU
source code and here's a summary of what I've found. The next step is to
create a radio interface on a protoboard and test it. I thought I'd post
this so others could benefit and if there are any mistakes please let me know.

J7 is also known as Port B in the EVM. Pins 15 and 16 are nearest the OnCE

and SCI DE9 connectors. References to Left and Right refer to two separate radio ports (not to confuse radio port to Port B on the EVM). Left equates to Radio Port 1 and right equates to Radio Port 2.

Here's the layout looking from the top:

```
                          J7
                       _________
PushDown Left   B8     |1      2|    B14  Heartbeat
Relay (N1OWU)   B9     |3      4|    B12
                B10    |5      6|    B11
Status/DCD LED  B13    |7      8|    B6   PushDown Right
PushUp Left     B7     |9     10|    B4   PTT Right
PushUp Right    B5     |11    12|    B2   Down LED
CAT             B3     |13    14|    B0   PTT Left
Up LED          B1     |15    16|    Gnd
                       ----------
```

I have been warned not to use ULN2003's for the UP and DOWN pushbuttons, but that they are fine with LEDs. So I will use either 7404's, 7405's, or 2N3406's (whatever is in my junk box) for mic click up and down and the ULN2003's for the LEDs.

Any other thoughts and/or corrections??

73,

 - Steve, N7HPR
 (n7hpr@tapr.org)

20. Re: [DSP:474] DSP56002EVM Radio Interface

From: Lyle Johnson <lylej@azstarnet.com>
Date: Sat, 10 May 1997 19:01:05 -0700
To: dsp@tapr.org
Message-ID: <3.0.32.19970510185757.006e86e8@pop.azstarnet.com>
Rendered body type: text/plain

>I have been warned not to use ULN2003's for the UP and DOWN pushbuttons,
>but that they are fine with LEDs. So I will use either 7404's, 7405's, or
>2N3406's (whatever is in my junk box) for mic click up and down and the
>ULN2003's for the LEDs.
>
>Any other thoughts and/or corrections??

Steve,

The ULN2003 and its ilk are darlington-ouput open-collector drivers. Because of the darlington configuration, they won't pull a line below about 0.8 volts. Some radios rebel at this level for PTT, U/D, etc.

However, you *can* use the ULN2595. It has eight (8) open-collector NPN outputs, rated to 200 mA, 20V open circuit, etc. Note that it is a non-inverting buffer.

ICOM radios (used to) use a 3-level interface for UP/DOWN, so open collectors are the easiest way to go.

Cheers,

Lyle

21. The EVM PSK Modem works!

From: "Steven R. Bible" <srbible@gate.net>
Date: Sun, 11 May 1997 21:03:08 -0400
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970511210308.0068c9f8@pop.gate.net>
Rendered body type: text/plain

At about 14:30 EDT I was able to track AO-16 and capture the downlink on the DSP56002EVM running N1OWU's PSK modem. It was exciting to see it work. What I set up was quick and dirty. I wanted to see it work even before I started working on the radio interface.

In a nut shell, I hooked up the speaker out of the radio in to IN on the EVM left channel. I loaded BIOS2.CLD, PSK.CLD, and FLSHBOOT.CLD. GO $3400 and flashed the EEPROM. Reset, move the serial cable over to the SCI port. I used WiSP set to a TNC2. I had to manually tune the radio until I saw something print out. But it was enough to see that the EVM works. So the next step is to prototype the radio interface... and

learn how to use the DL.EXE program. I would like to set up WiSP to run
DL.EXE before a satellite pass with the appropriate modem (G3RUH or PSK).
This way I'll be one step closer to hands off operation. Anyone already
doing this?

So a question to the group, in using WiSP, I take it that selecting TNC2 is
fine. I thought WiSP had a KISS mode, but I guess not. In reading the
help file it just says if you don't have one of the listed TNCs then
default to the TNC2. I wonder what is coming out of WiSP then, such as
WiSP commanding the TNC2 into KISS mode before the pass and out of KISS
mode after the pass. I also see on MSPE that it says it has commanded the
TNC into FULL DUPLEX mode. So I fear that commands are going to the EVM,
but hopefully ignoring them.

 - Steve, N7HPR
 (n7hpr@tapr.org)

22. Re: [DSP:476] The EVM PSK Modem works!

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Mon, 12 May 1997 03:44:39 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970512034439.00693f4c@camel.campbell.edu>
Rendered body type: text/plain

Hi Steve,

Great!

>learn how to use the DL.EXE program. I would like to set up WiSP to run
>DL.EXE before a satellite pass with the appropriate modem (G3RUH or PSK).
>This way I'll be one step closer to hands off operation. Anyone already
>doing this?

Yep. DL works like a champ. It is a matter of running the conversion
program to convert the file into the other format (cld to lod). For
automation, however, there is the issue of getting your system to set the
downlink freq. RIGHT ON for the PSK modem. My experience has been that it
basically takes some manual tuning before the button clicks will take over.
 I find it very tough to fully automate the PSK birds.

You can make a couple of good old DOS .bat files and have Wisp launch them
before the pass in the "Schedule Events" menu to load the correct modem. I
was doing that with my DSP-93 for a long time, before I put the EVM on
line. Works out dandy.

>
>So a question to the group, in using WiSP, I take it that selecting TNC2 is
>fine. I thought WiSP had a KISS mode, but I guess not. In reading the

Yes, for Wisp, use TNC2. The PSK and G3RUH modems for the EVM *are* KISS
mode. You can set each one up for either full duplex or half duplex in the
code.
Basically, Wisp seems to leave the EVM alone after a pass, so to speak.

To convince yourself that the modems are KISS, load up the 1200 baud packet
modem and try to run Procomm or some other "regular" communications
package. You will quickly see why Doug has (graciously!) provided a
version of PMP that runs a KISS modem. PMP works great and is about the
only way I've found to be able to work regular 1200 terrestrial packet.

>help file it just says if you don't have one of the listed TNCs then
>default to the TNC2. I wonder what is coming out of WiSP then, such as
>WiSP commanding the TNC2 into KISS mode before the pass and out of KISS
>mode after the pass. I also see on MSPE that it says it has commanded the
>TNC into FULL DUPLEX mode. So I fear that commands are going to the EVM,
>but hopefully ignoring them.

Right!

>
>
>
> - Steve, N7HPR
> (n7hpr@tapr.org)

Looking forward to working you EVM to EVM on the birds! Shoot me a
message. I catch KO-23 and KO-25 daily; I occasionally catch AO-16.

73, and happing EVM-ing! (Now, if I could ever get mine mounted into a
box...it has been on the bench for a few months, in continuous operation!
Maybe this summer....)

Mark L. Hammond   [KC4EBR]

23. Re: New Book and a question

From: Lawrence Stoskopf <stoskopf@tri.net>
Date: Sun, 11 May 1997 22:59:07 -0500
To: dsp@tapr.org
Message-ID: <3376958B.E6877B0F@tri.net>
Rendered body type: text/plain

Found a book at Borders, A Digital Signal Processing Primer by Ken
Steiglitz which gives a great overview with a reasonable amount of
math. Of special interest are the Notes section at the end of each
chapter which really reveal his level of interest in the subject.

One of the remarkable comments (about timing various FFT programs) is:

"The FORTRAN program translated into C for the timing tests in Section 7
is attributed to Cooley, Lewis, and Welch in

    L.R. Rabiner and B. Gold, Theory and Application of Digital signas
Processing, Prentice-Hall, Englewood Cliffs, N.J. 1975,

where it is reproduced on p. 367. It is remarkably concise (32 lines)
and violates all present-day standards of programming style and
documentation. Deciphering and translating it into C is an amusing
exercise."

I won't be over to the nearest university library for a month or so.
Any one have the book and time to post 32 lines to this forum or
directly. Microsoft programmers probably won't be interested in such a
short program!

The book repeatedly refers to a program, METEOR, for linear programming
the size of a filter, but doesn't say much about it.

Addison-Wesley has a link at:

http://www.aw.com/cseng/authors/steiglitz/dspp/dspp.html

N0UU

24. another KISS packet program for DSPs

From: "Mark L. Hammond" <hammond@camel.campbell.edu>
Date: Mon, 12 May 1997 11:26:19 +0000
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970512112619.006bb7f8@camel.campbell.edu>
Rendered body type: text/plain

Hello all,

I have copied a reply that I think is of general interest. Please not the
link/reference to the KISS able packet program. That might be of interest
to several DSP users as an alternate to Doug's version of PMP.
========================
Hi Bjoern,

I'll checkout that program. It sounds nice. As for frequency control, I
cannot use Wisp to do that because I do not use the KCT. I have a homebrew
trackbox that Wisp does control and moves my antennas, but I do not have
frequency control in my homebrew tracker.

I use FODTRACK for doppler correction on 9600 birds. Maybe I can use that
for PSK birds too with very fresh keps. I keep my computer connected to
the Internet, so the clock is set every 60 minutes by a small program.

As for the DSP list, it is for ANY DSP related topic. You might find the
help you need to get your DSP4 on 9600 just by asking there. Some very
brilliant DSP people monitor the list. I think you may get some very good
help, just like you helped me!

Thanks and 73,

At 09:26 5/12/97 +0200, you wrote:
>Hello Mark..!
>
>Re:
>"
>To convince yourself that the modems are KISS, load up the 1200 baud packet
>modem and try to run Procomm or some other "regular" communications
>package. You will quickly see why Doug has (graciously!) provided a
>version of PMP that runs a KISS modem. PMP works great and is about the
>only way I've found to be able to work regular 1200 terrestrial packet.
>"
>
>Have you tried this program:
>PR4WIN ?
>
>It runs kiss mode - Win95, and I use it regularly with DSP4 and Pawel's
>modem FSK1200a.asm.
>
>The author is at:
>
>WWW: http://www.csesys.co.at/bstroj/pr4win.htm
>
>Re:
>"I find it very tough to fully automate the PSK birds."
>
>For psk, I use
>1. Fresh keps,
>2. Accurate clock - within 1 -2 sec.
>
>After loading new kepler data, I check the freq. with the pop-up window
>and adjust - say 100 hz up/down in the satellite's set-up menu in Wisp.
>Then after this I normally get auto tracking.
>
>Before Wisp, I used Satsked and Satlink and dos to automate.
>I had my KCT board modified as per N6KK's KCT ver 5.00 - 5.21 and loaded
>the mike up/down pulses from my (then) DSP12 into the KCT board.
>That was an almost perfect set-up - I didn't miss a single pass!
>Unfortunately, I have not succeded into getting someone to write a new
>KCT driver for Wisp......
>
>The original G3RUH psk modem kit also had a very good tracking facility -
>once you got used to it ...!
>
>My problem for the time being is getting the G3RUH modem to run with the
>DSP4 modem, not much gray hair left am afraid (retired - age 65..)
>
>Thanks for your info, I use personal mail since this list is for the EVM
>module, and the DSP4 list seems dying out am afraid...
>
>Regards
>
>Bjoern Stokke LA5ZL
>
>AO16 LO19
>
>e.mail: bjstokke@online.no
>

Mark L. Hammond   [KC4EBR]

25. Dead 2232 tuning indicators

From: Dennis Cahill <cahill@chasque.apc.org>
Date: Mon, 12 May 1997 08:56:09 -0300
To: dsp@tapr.org
Message-ID: <33770559.4420@chasque.apc.org>
Rendered body type: text/plain

Hi!

Both tuning indicators on my dsp 2232 are dead. They only light up very
dimly when the tnc starts up.

Wilf, VE7QO, has suggested that wiggling the dsp chip, u54, should fix
the problem since it's corroded contacts that cause it.

Has anybody else had this problem? Any suggestions?

73's de CX7AP, Dennis.

26. Re: [DSP:478] Re: New Book and a question

From: "Lyle V. Johnson" <johnson@mmsi.com>
Date: Mon, 12 May 1997 10:54:17 -0700
To: stoskopf@tri.net
Cc: dsp@tapr.org
Message-ID: <33775949.5B95@mmsi.com>
Rendered body type: text/plain

Lawrence Stoskopf wrote:

> One of the remarkable comments (about timing various FFT programs) is:
>
> "The FORTRAN program translated into C for the timing tests in Section 7
> is attributed to Cooley, Lewis, and Welch in
>
>   L.R. Rabiner and B. Gold, Theory and Application of Digital signas
> Processing, Prentice-Hall, Englewood Cliffs, N.J. 1975,
>
> where it is reproduced on p. 367. It is remarkably concise (32 lines)
> and violates all present-day standards of programming style and
> documentation. Deciphering and translating it into C is an amusing
> exercise."
>
> I won't be over to the nearest university library for a month or so.
> Any one have the book and time to post 32 lines to this forum or
> directly.

Here it is, scanned and corrected for scanning errors...

```
        SUBROUTINE FFT(A,M,N)
        COMPLEX A (N) U, W,T
        N = 2**M
        NV2 = N/2
        NM1 = N - 1
        J = 1
        DO 7 I = 1,NM1
        IF (I .GE. J) GO TO 5
        T = A(J)
        A(J) = A(I)
        A(I) = T
5       K = NV2
6       IF(K GE. J) GO TO 7
        J = J - K
        K = K/2
        GO TO 6
7       J = J + K
        PI = 3.141592653589793
        DO 20 L = 1,M
        LE = 2**L
        LE1 = LE/2
        U = (1.0,0.)
        W = CMPLX(COS(PI/LEl),SIN(PI/LE1))
        DO 20 J = 1,LE1
        DO 10 I = J,N,LE
        IP = I + LE1
        T = A(IP) * U
        A(IP) = A(I) - T
10      A(I) = A(I) + T
20      U = U   * W
        RETURN
        END
```

6.8 FORTRAN code for a decimation-in-time, radix 2, in-place FFT
(After Cooley, Lewis, and Welch.)

Cheers,

Lyle

27. Re: [DSP:481] Re: New Book and a question

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Mon, 12 May 97 13:40:53 CDT
To: dsp@tapr.org
Message-ID: <9705121840.AA04484@aa5df.sps.mot.com>

Rendered body type: text/plain

FORTAN?? Whats *that*?? Ick!

Since there seems some interest in the Cooley-Tukey FFT...You may be
interested in the Motorla FFT App note APR4. It is available in PDF
from the WWW at http://www.mot.com/SPS/DSP. Click on the Documentation
Icon, then Applications Notes, and APR4/D.

It starts with the Discrete Fourier Transform, and works its way into
the FFT and various methods for speeding up the calculation. Various
FFT routines are avaiable in the Dr Bub software archieve found by
clicking on the Technical Center and Software icons, then Dr Bub's Free
Software Library, and downloading 56000.zip.

73, Tim

28. Re: [DSP:482] Re: New Book and a question

From: Steve Sampson <ssampson@claven.tinker.af.mil>
Date: Mon, 12 May 1997 14:33:55 -0500
To: dsp@tapr.org
Message-ID: <337770A3.794B@eds.tinker.af.mil>
Rendered body type: text/plain

I took Intoduction to Engineering a couple years
ago and they still teach the course with Fortran.

The good news is they used Fortran-90. The bad news
is that Fortran-90 has so many concepts from C, that
you would be better off with learning that! It even has
memory allocation functions. I still thought
Fortran-II was a better language than Fortran-90, so
pure ya know :-)

Now that there is equivelant math libraries for C and
C++, (Plus Numerical Recipes has a C volume) I would think
the schools could put Fortran to death. I suspect even
NASA has converted everything to assembly language by now.
(that controls spacecraft).

Tim Baggett wrote:
>
> FORTAN?? Whats *that*?? Ick!

29. Re: [DSP:481] Re: New Book and a question

From: forrerj@peak.org (Johan Forrer)
Date: Mon, 12 May 1997 13:03:03 -0800
To: dsp@tapr.org
Message-ID: <199705121954.MAA00662@PEAK.ORG>
Rendered body type: text/plain

Hi,

FWIW:
I have played/explored Steglitz's METEOR program in the past; if anyone is
interested in the package, I would be happy to dig it out and e-mail the
contents. This was pulled off the Internet after reading the articles (don't
ask me where ... the URL is mentioned in the articles) - the code compiled
and ran OK under Linux. It was some years ago however.

As others have noted, the work is a little dated and really is about how to
calculate filter order, given passband/stopband rejection and ripple
criteria - the kind of thing that always seemed to pop up in my advanced DSP
graduate coursework. However, I have found it of little practical value thus
far in the real world because there always seem to be some other factor that
overrides these criteria anyway. But its a good idea to know how to do it
when you really need it.

Johan

30. Re: [DSP:479] another KISS packet program for DSPs

From: "Steven R. Bible" <srbible@gate.net>
Date: Mon, 12 May 1997 08:34:13 -0400
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970512083413.006ec338@pop.gate.net>
Rendered body type: text/plain

>>Thanks for your info, I use personal mail since this list is for the EVM
>>module, and the DSP4 list seems dying out am afraid...
>>
>>Regards
>>
>>Bjoern Stokke LA5ZL
>>
>>AO16 LO19
>>
>>e.mail: bjstokke@online.no

Bjoern, so untrue! This is the DSP SIG, to talk about any and all DSP
related topics. Yes the DSP56002EVM is popular here but so it the TI DSKs
and Analog Devices Easy-Kits. Your note to Mark was right on the money.
Please post such information to the list, that's what it's for.

Information that gathers here I will try to include on the DSP
Experimenters Web Pages (http://www.tapr.org/dsp/). I have not found the
time to update them and many others I care and feed for, but I plan to get
to them soon. I want to document all amateur DSP experimentation and be on
the lookout for new EVMs or DSKs out there for possible use by amateurs.

 - Steve, N7HPR
 (n7hpr@tapr.org)

31. Re: [DSP:483] Re: New Book and a question

From: "Jim Lynch" <k4gvo@mindspring.com>
Date: Mon, 12 May 1997 20:51:08 +0000
To: dsp@tapr.org, dsp@tapr.org
Message-ID: <199705130048.UAA23097@brickbat9.mindspring.com>
Rendered body type: text/plain

> Date: Mon, 12 May 1997 14:36:35 -0500 (CDT)
> Reply-to: dsp@tapr.org
> From: Steve Sampson <ssampson@claven.tinker.af.mil>
> To: dsp@tapr.org
> Subject: [DSP:483] Re: New Book and a question

(snip)
> Now that there is equivelant math libraries for C and
> C++, (Plus Numerical Recipes has a C volume) I would think
> the schools could put Fortran to death. I suspect even
> NASA has converted everything to assembly language by now.
> (that controls spacecraft).
Not too many years ago, (3? maybe) I did the benchmark for the
Cray computer at Marshall Flight Center (NASA) and it was all
FORTRAN. Most, if not all was FORTRAN 77, but some of it would
have run on a FORTRAN 66, if you could have found one.
While Cray computers have a C compiler, most of the real work
done in the engineering and scientific world is still done in
FORTRAN. The only group of Cray users using C or C++ is the
financial community. Now what does this have to do with DSP?
Sorry for the bandwidth, but I had to clear up a misconception that
FORTRAN is a dead language. Far from it. Much of the work being
done on the large massively parallel computer systems is being done
in FORTRAN, since parallel constructs are a part of FORTRAN 90 unlike
C. I could go on and on and on, but I won't. 8^)
>
> Tim Baggett wrote:
> >
> > FORTAN?? Whats *that*?? Ick!
>
>
Later,
Jim.   Cray Research/Silicon Graphics person....
Jim Lynch   Fayetteville, GA   K4GVO
'86 GL1200I   k4gvo@mindspring.com   44.36.34.20

32. Re: [DSP:480] Dead 2232 tuning indicators

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Tue, 13 May 97 15:31:12 CDT
To: dsp@tapr.org, hawk@aa5df.sps.mot.com
Message-ID: <9705132031.AA07859@aa5df.sps.mot.com>
Rendered body type: text/plain

> Both tuning indicators on my dsp 2232 are dead. They only light up very
> dimly when the tnc starts up.
>
> Wilf, VE7QO, has suggested that wiggling the dsp chip, u54, should fix
> the problem since it's corroded contacts that cause it.
>
> Has anybody else had this problem? Any suggestions?

Dennis,

The DSP package that AEA used is not very reliable at making contact
with the socket. You can try to remove the DSP and use the eraser from
a pencil to clean oxidation off the contacts. Do take anti-static
precautions...The DSP you will be holding is *NOT* replaceable.
Motorola abandoned the ZF 'slam-pack' years ago. I imagine AEA got a
darn good deal on the remaining lot.

The last remaining 56001 'slam-pack' is tacked up on a neighboring
office wall with eyes glued to it....

73,
Tim

33. Re: [DSP:474] DSP56002EVM Radio Interface

From: Eduardo Jacob <edu@kender.es>
Date: Tue, 13 May 1997 22:06:22 -0100
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970513220622.006bac6c@kender.es>
Rendered body type: text/plain

>I've been studying the schematics for the EVM and read through the N1OWU
>source code and here's a summary of what I've found. The next step is to
>create a radio interface on a protoboard and test it. I thought I'd post
>this so others could benefit and if there are any mistakes please let me
know.

>Any other thoughts and/or corrections??

        From the experience of using one interface (the by JAbi/EA2ARU), I would
suggest to prepare it in 3 parts

One of them would be a small board with a connector suited to connect to
Port B connector. Over it, you could place the IC for the Leds and PTT
actuation. You could perhaps let the unused pins of port B, appear on it
for quick experiments.

Another one would have the leds, and perhaps the resistors for the leds, it
should be tied to the first board by a ribbon cable, and should be ready
for directly appear through the front plate. I suggest this disposition.

```
PUp  PDown   Up  DCD     Down    PUp    PDown
0     0      0    O    O      0   0
0            O    O    O      0
Ptt         Pll  Once Level   Ptt

Radio Port 1                      Radio Port 2
```

I would also present Once and PLL signals out.

The third board could contain the two (¿mini?, not for me)DIN 8 connectors
and the relay , it would be tied to the 1st board bye ribbon cable and
shielded cable for signal i/o.

8 Pins, perhaps coudl be...

Up
Down
PTT
Rx 1200
Tx 1200
Rx 9600
Tx 9600
GND

Eduardo/EA2BAJ

34. AEA DSP-2232 and XpWIN

From: Eduardo Jacob <edu@kender.es>
Date: Tue, 13 May 1997 21:35:50 -0100
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970513213550.006aa4f8@kender.es>
Rendered body type: text/plain

This is perhaps a little out of topic, but...

I own a 2nd hand AEA-DSP2232 and I have been playing with XPWIN version 1.14 and 1.18 (nice addition the SIAM option) and I am not able to put the VHF packet side of the program at work. The TNC works fine with Wisp (satellite tracking) and Winpack, for BBS access.

The problem is that the session I start with any packet node doesn't create any new window in the program (I think it should, as others programs that use the TNC in Host mode do), and the data I receive is mixed with the packets for other stations in the main VHF window. Also I have been told by other hams that after the connect-request, I don't transmit other packets (as if the soft is deaf for that connection). If I ask for a disconnect it transmits again . And I can see the disconnect.

I have been trying with "Mcon" on and off, with "users" 1 or 4, with "chswitc" $00 and $7c and with "DCDcon". I really don't understand what is happenning.

I have contacted the author and he has no kludges... Any ideas?

Eduardo/EA2BAJ

35. RE: [DSP:489] AEA DSP-2232 and XpWIN

From: "Johnson, Gary" <gjohnson@asml.com>
Date: Wed, 14 May 97 00:12:00 PDT
To: dsp <dsp@tapr.org>
Message-ID: <3378E1F6@msmail>
Rendered body type: text/plain

One thing I forgot to ask on the original message was what is the date of the
firmware. For XPWIN to work correctly the TNC must be capable of HOST $07 mode. You check the current host mode by pressing F11 and entering HOST and then press ENTER. It should respond with HOST $07, if not it may have an older version of firmware. Just an idea.

73 Gary KF7XP

36. Re: [DSP:488] Re: DSP56002EVM Radio Interface

From: "Steven R. Bible" <srbible@gate.net>
Date: Tue, 13 May 1997 18:55:33 -0400
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970513185533.006f75a8@pop.gate.net>
Rendered body type: text/plain

>The third board could contain the two (=BFmini?, not for me)DIN 8 connectors
>and the relay , it would be tied to the 1st board bye ribbon cable and
>shielded cable for signal i/o.

It appears that the 8-pin mini-DIN on the DSP-93 is not popular. It does not hold well and is easily knocked off. Mark says that he uses a 15-pin D connector. Another choice might be 8-pin regular sized DIN, much like the PacComm units.

- Steve, N7HPR
(n7hpr@tapr.org)

37. HF modems w/soundblaster

From: Matt Ettus <mne@cmu.edu>
Date: Wed, 14 May 1997 00:12:38 -0400
To: dsp@tapr.org
Message-ID: <3.0.32.19970514001237.006bcda8@gauss.ece.cmu.edu>
Rendered body type: text/plain

Hi. I have recently completed the first stages of a 16FSK (with Reed solomon coding) HF modem which uses a soundcard for codec and x86 for DSP.

I have some questions about soundcards in general

I have tested my modem with 2 different soundcards, one an Ess1688, and a
crystal semi CS4xxx (not sure of number).

Anyway, the ESS allows itself to be set to ANY sampling frequency, while
the crystal semi only gets set to submultiples of 44.1khz

My question is, Is the ESS really at those sampling frequencies in between?
 or is it just going to the closest submultiple of 44.1khz and not
reporting that

Second, how accurate can one expect the sampling rate to be (assuming the
PC can keep up ok)? My ESS isn't crystal controlled, so that makes me wonder

Thanks

Matt
N2MJI

38. Re: AEA DSP-2232 and XpWIN

From: Eduardo Jacob <edu@kender.es>
Date: Wed, 14 May 1997 07:32:40 -0100
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970514073240.006bc0d0@kender.es>
Rendered body type: text/plain

>One thing I forgot to ask on the original message was what is the date of
>firmware. For XPWIN to work correctly the TNC must be capable of HOST $07
>mode. You check the current host mode by pressing F11 and entering
>HOST and then press ENTER. It should respond with HOST $07, if not
>it may have an older version of firmware. Just an idea.

This is my version.

AEA DSP-2232 Data Controller
Copyright (C) 1986-1993 by
Advanced Electronic Applications, Inc.
Release 01.DEC.93
Ver. 7.0

Although the host on command by default sets Host $01, I can put Host $07
and this time it answers Host $07

        Eduardo/EA2BAJ

39. Re: [DSP:492] HF modems w/soundblaster

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Wed, 14 May 1997 10:00:29 +0200
To: dsp@tapr.org
Message-ID: <3379711C.3652@ife.ee.ethz.ch>
Rendered body type: text/plain

> My question is, Is the ESS really at those sampling frequencies in between?
> or is it just going to the closest submultiple of 44.1khz and not
> reporting that

It's a submultiple of a much higher frequency, in the several 100 kHz
region,
I don't recall the frequency, just look into the linux sound driver code
if you want to know it exactly.

> Second, how accurate can one expect the sampling rate to be (assuming the
> PC can keep up ok)? My ESS isn't crystal controlled, so that makes me wonder

I never got my ESS 1688 in my notebook to sample at exactly the rate it
should
have to... It was usually off by a few percent - too much for use as a
time
base on HF... the CS4236 I have however does what it advertises... and
it does
fullduplex

73s
Tom

40. RE: [DSP:493] Re: AEA DSP-2232 and XpWIN

From: "Johnson, Gary" <gjohnson@asml.com>
Date: Wed, 14 May 97 18:00:00 PDT
To: dsp <dsp@tapr.org>
Message-ID: <3379DC8F@msmail>
Rendered body type: text/plain

Try doing the connect with the HOST $07 command. This should get the
required
connect window.

73 Gary KF7XP

PS> I will check the code when I get back to the states in a few weeks.

From: dsp
To: dsp
Subject: [DSP:493] Re: AEA DSP-2232 and XpWIN
Date: Wednesday, May 14, 1997 1:36AM

>One thing I forgot to ask on the original message was what is the date of
>firmware. For XPWIN to work correctly the TNC must be capable of HOST $07
>mode. You check the current host mode by pressing F11 and entering
>HOST and then press ENTER. It should respond with HOST $07, if not
>it may have an older version of firmware. Just an idea.

This is my version.

AEA DSP-2232 Data Controller
Copyright (C) 1986-1993 by
Advanced Electronic Applications, Inc.
Release 01.DEC.93
Ver. 7.0

Although the host on command by default sets Host $01, I can put Host $07
and this time it answers Host $07

        Eduardo/EA2BAJ

41. Interested on DSP

From: "Jos I. Baena" <equipa@cec.caan.es>
Date: Thu, 15 May 1997 14:17:22 +0200
To: dsp@tapr.org
Message-ID: <337AFED2.62AD@cec.caan.es>
Rendered body type: text/plain

Dear friends, I wish to be part of DSP SIG. Specially on the new 56002
but I see it's too late for join to the special purchase offer so I hope
you can tell me more about this or where can I purchase one of these
beginners module. Maybe at Motorola home?

Thanks for all and will look forward for your news.

--
----
73 de Jose I. Baena (EA7HBZ)
Address: Mail: Padre Isla, 6, 1-C
         ax25: EA7HBZ@EA7URS.EASE.ESP.EURO
         inet: equipa@cec.caan.es
----

42. Re: [DSP:496] Interested on DSP

From: Richard Mulvey <mulveyr@frontiernet.net>
Date: Thu, 15 May 1997 09:33:24 -0400 (EDT)
To: dsp@tapr.org
Message-ID: <199705151333.JAA59174@node6.frontiernet.net>
Rendered body type: text/plain

>
> Dear friends, I wish to be part of DSP SIG. Specially on the new 56002
> but I see it's too late for join to the special purchase offer so I hope
> you can tell me more about this or where can I purchase one of these
> beginners module. Maybe at Motorola home?
>
> Thanks for all and will look forward for your news.
>

Jose:

   I just ordered a 56002EVM from Arrow Electronics. They charged
$150.00US for the package. Their phone number is 800-833-3557.

- Rich

>

43. Re: [DSP:496] Interested on DSP

From: Eduardo Jacob <jtpjatae@bicc00.bi.ehu.es>
Date: Tue, 20 May 1997 13:35:21 +0200
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970520133521.007f1d10@bicc00.bi.ehu.es>
Rendered body type: text/plain

At 07:20 15/05/97 -0500, you wrote:

>Dear friends, I wish to be part of DSP SIG. Specially on the new 56002
>but I see it's too late for join to the special purchase offer so I hope
>you can tell me more about this or where can I purchase one of these
>beginners module. Maybe at Motorola home?

        I got mine in Spain calling to local (Bilbao) reseller of Motorola. It
wasn't a bargain. After that, I have been told that they are available in
Madrid a better price. If I were you I would send a message to motorola and
ask them for resellers (mayoristas) in Spain and choose from them. The
prices are very different from one to other, they have detected that there
is much interest.

        Eduardo/EA2BAJ

Eduardo Jacob - EA2BAJ
VHF PACKET: EA2BAJ @ EA2URV
PGP Key avlb: Send email w/subject: PGPKEY
fingerprint : D8 FA 54 49 F7 40 BA AA 09 1A 73 40 A4 26 ED BD

44. EVM WWW page available

From: Eduardo Jacob <jtpjatae@bicc00.bi.ehu.es>
Date: Tue, 20 May 1997 13:43:24 +0200
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970520134324.007f25b0@bicc00.bi.ehu.es>
Rendered body type: text/plain

I have made available in my page information about DSP (most about EVM),
it's all in english, except 3 articles we have published in the Spanish
Edition of CQ Magazine. I hope they will be of interest to you. Comments
are welcome.

There are available at:

http://det.bi.ehu.es/~jtpjatae/ham.html

        Eduardo/EA2BAJ

Eduardo Jacob - Area de Ingenier'ia Telem'atica
Departamento de Electr'onica y Telecomunicaciones
ETSII y de IT   Tel: +34-(9)4-427 8055
UPV / EHU   Fax: +34-(9)4-441 4041
Alda Urquijo s/n   E-mail: jtpjatae@bi.ehu.es
E-48013 - Bilbao (Spain)   : edu@kender.es
Ham: EA2BAJ   VHF PACKET: EA2BAJ @ EA2URV
PGP Key available: Send email w/subject: PGPKEY
fingerprint   : D8 FA 54 49 F7 40 BA AA 09 1A 73 40 A4 26 ED BD

45. Re: [DSP:498] Re: Interested on DSP

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Tue, 20 May 97 11:30:02 CDT
To: dsp@tapr.org
Message-ID: <9705201630.AA26807@aa5df.sps.mot.com>
Rendered body type: text/plain

>   I got mine in Spain calling to local (Bilbao) reseller of Motorola. It
> wasn't a bargain. After that, I have been told that they are available in
> Madrid a better price. If I were you I would send a message to motorola and
> ask them for resellers (mayoristas) in Spain and choose from them. The
> prices are very different from one to other, they have detected that there
> is much interest.

I have in the list:

Amitron Arrow   (34) 1 304 30 40
EBV Spain   (34) 1 804 32 56
Selco S.A.   (34) 1 637 10 11

73,
Tim

46. Re: [DSP:499] EVM WWW page available

From: "Ken Harris" <kjh@goober.shoreline-studios.com>
Date: Tue, 20 May 1997 12:43:41 -0700
To: dsp@tapr.org
Message-ID: <9705201243.ZM18389@goober.shoreline-studios.com>
Rendered body type: text/plain

On May 20, 6:47am, Eduardo Jacob wrote:
> Subject: [DSP:499] EVM WWW page available
> I have made available in my page information about DSP (most about EVM),
> it's all in english, except 3 articles we have published in the Spanish
> Edition of CQ Magazine. I hope they will be of interest to you. Comments
> are welcome.
>
> There are available at:
>
> http://det.bi.ehu.es/~jtpjatae/ham.html

        I tried this; I get an error message of "A network error occured:
unable to connect to server. The server may be down or unreachable"...
I can "ping" this host, but there doesn't seem to be a Web server
running on it....

47. Re: [DSP:501] Re: EVM WWW page available

From: Richard Mulvey <mulveyr@frontiernet.net>
Date: Tue, 20 May 1997 16:37:01 -0400 (EDT)
To: dsp@tapr.org
Message-ID: <199705202037.QAA42122@node5.frontiernet.net>
Rendered body type: text/plain

>
> On May 20, 6:47am, Eduardo Jacob wrote:
> > Subject: [DSP:499] EVM WWW page available
> > I have made available in my page information about DSP (most about EVM),
> > it's all in english, except 3 articles we have published in the Spanish
> > Edition of CQ Magazine. I hope they will be of interest to you. Comments
> > are welcome.
> >
> > There are available at:
> >
> > http://det.bi.ehu.es/~jtpjatae/ham.html
>
>   I tried this; I get an error message of "A network error occured:
> unable to connect to server. The server may be down or unreachable"...
> I can "ping" this host, but there doesn't seem to be a Web server
> running on it....
>
>

   I was able to hit it this morning, but now it seems to be inaccessible. My first attempt showed it
to be very complete, however. :-)

- Rich

48. Re: [DSP:501] Re: EVM WWW page available

From: RLANIER@mailb.harris.com (RLANIER)
Date: Wed, 21 May 1997 08:58:55 -0400
To: dsp@tapr.org
Message-ID: <382f1f40@mailb.harris.com>
Rendered body type: text/plain

>On May 20, 6:47am, Eduardo Jacob wrote:
>> Subject: [DSP:499] EVM WWW page available
>> I have made available in my page information about DSP (most about
>EVM), > it's all in english, except 3 articles we have published in the
>Spanish > Edition of CQ Magazine. I hope they will be of interest to you.
>Comments > are welcome.
>>
>> There are available at:
>>
>> http://det.bi.ehu.es/~jtpjatae/ham.html

>   I tried this; I get an error message of "A network error occured:
>unable to connect to server. The server may be down or
>unreachable"... I can "ping" this host, but there doesn't seem to be a
>Web server running on it....

     The reason it did this is because your software (Netscape, etc.) was
     trying to connect but it "timed out," meaning it tried to connect
     within a given amount of time, usually 30 seconds, but couldn't, so it
     displayed the above message. Whenever you try to connect to a server
     to look at a web page, the data must flow through several connections
     (not sure what they're are called). Sometimes these connections don't
     mate sue to high traffic volumes and your stalled. If your trying to
     connect across the world (Europe to U.S.A.), this can be even more of
     a problem.

     If you get this message, keep trying: you will get through. However,
     sometimes the server is down for repairs or upgrades, but keep trying!

     Tony   KE4ATO

49. Re: EVM WWW page available

From: Eduardo Jacob <jtpjatae@bicc00.bi.ehu.es>
Date: Wed, 21 May 1997 15:17:08 +0200
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970521151708.00830540@bicc00.bi.ehu.es>
Rendered body type: text/plain

>> > http://det.bi.ehu.es/~jtpjatae/ham.html
>>
>>   I tried this; I get an error message of "A network error occured:
>> unable to connect to server. The server may be down or unreachable"...
>> I can "ping" this host, but there doesn't seem to be a Web server
>> running on it....
>
>   I was able to hit it this morning, but now it seems to be inaccessible.
 My first attempt showed it to be very complete, however. :-)

        I have seen in the logs that there are many timeouts, I have also seen
that hours after posting here I got many connections (many from proxies),
perhaps the server suffered a bit too much... (it's a little server...)

        In any case, I would say you should try to connect to the web in low
traffic hours, mostly when connecting when the other side of the Atlantic.
We have very good throughput with Spain and Europe, but not with USA. Low
traffic hours with USA, are about 05h00 to 10h00 UTC.

        Eduardo/EA2BAJ

Eduardo EA2BAJ http://det.bi.ehu.es/~jtpjatae/ham.html
VHF PACKET: EA2BAJ @ EA2URV
PGP Key avlb: Send email w/subject: PGPKEY
fingerprint : D8 FA 54 49 F7 40 BA AA 09 1A 73 40 A4 26 ED BD

50. Macintosh software for EZKIT - Lite and TI DSK

From: polder@cpro.dlo.nl (Gerrit Polder)
Date: Fri, 23 May 1997 09:21:06 +0200
To: dsp@tapr.org
Message-ID: <199705230721.JAA13974@ganges.cpro.dlo.nl>
Rendered body type: text/plain

Macintosh users with an EZKit - Lite, or a TI DSK DSP starterkit,
can find software for these kits at:

http://www.qsl.net/pa3bya

73's, Gerrit.

51. Chassis punches for DB9 connectors?

From: Richard Mulvey <mulveyr@frontiernet.net>
Date: Fri, 23 May 1997 10:08:53 -0400 (EDT)
To: dsp@tapr.org
Message-ID: <199705231408.KAA31996@node6.frontiernet.net>
Rendered body type: text/plain

Hello everyone:

   Now that I've got my DSP56002EVM in hand, I need to mount it
in a case.

   Does anyone know of a source for *inexpensive* DB9 chassis
punches? The cheapest I've been able to find is about $250.00,
and I don't need to make *that* many holes. :-)

   Barring that, what have other people been doing about mounting
the EVM?

- Rich

52. Re: [DSP:506] Chassis punches for DB9 connectors?

From: "Frederick M. Spinner" <fred@tekdata.com>
Date: Fri, 23 May 1997 10:55:51 -0500 (CDT)
To: dsp@tapr.org
Message-ID: <Pine.LNX.3.95.970523105237.5538B-100000@tekdata.com>
Rendered body type: text/plain

On Fri, 23 May 1997, Richard Mulvey wrote:

> Hello everyone:
>
>   Now that I've got my DSP56002EVM in hand, I need to mount it
> in a case.
>
>   Does anyone know of a source for *inexpensive* DB9 chassis
> punches? The cheapest I've been able to find is about $250.00,
> and I don't need to make *that* many holes. :-)
>
>   Barring that, what have other people been doing about mounting
> the EVM?
>
> - Rich
>
>
I got somewhat lucky that our company has a DB-25 connector punch.
Therefore I have two 25 pin serial connectors on back of my unit.
This punch is also worth $250.

My suggestion is to carefully draw the holes you want, and drill, Dremel
and file them out. If your only making two holes, it isnt that bad.

Also, stay away from Radio Shack Steel cases. I made mine in one of
those. The steel is like spring steel, and kills drill bits, grinding
bits and your fingers when you try to machine it.

Use a good aluminum case and it should be easy.

Fred M. Spinner, KA9VAW
fred@tekdata.com

53. Announcement: Talks at SeaPac.

From: forrerj@peak.org (Johan Forrer)
Date: Thu, 29 May 1997 08:46:43 -0800
To: hfsig@tapr.org, dsp@tapr.org
Message-ID: <199705291535.IAA26481@peak.org>
Rendered body type: text/plain

Hi folks,

Thought I would like to let you know of an interesting event for
those living in the Northwest USA:

SeaPac, the ARRL, N.W. Convention, puts on a number of talks each year at
the Seaside, Oregon, Convention. This year, there are two that may
be of interest to those following this SIG:

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------------------------------------------------------------------------------
--------------
1) Sun 15th June, 9:15-10:15 AM. "Future Trends in HF Digital Communications."
   Part I:  The Ionosphere; its effects on HF digital communications;
            HF channel simulation for testing and evaluation.
   Part II: Contemporary HF modem design; high speed parallel and
            serial tone modems; application of coding theory.
   Speaker: Johan Forrer, KC7WW
------------------------------------------------------------------------------
--------------
2) Sun 15th June, 10:45 AM. "DSP Basics."
   Speaker: C. Uyeda, KJ6HC.
------------------------------------------------------------------------------
--------------

There also are other interesting talks and workshops put on by the AMSAT
folks, topics
such as "HF Amplifier Design" by W7RQT, also Roy Lewallen on "Computer
Antenna Analysis"
(the latter two are on Saturday, 14th June.)

These talks are usually well-attended events, quite informal and stimulates
discussion.
If you are in the neighborhood, consider looking into this.

73,

--Johan
```

54. R: [DSP:476] The EVM PSK Modem works!

```
From: Vittorio Moretti <cma.software@orion.it>
Date: Sat, 31 May 1997 15:25:35 +-200
To: "'dsp@tapr.org'" <dsp@tapr.org>
Message-ID: <01BC6DD7.43E4DE00@usr6.sassuolo.orion.it>
Rendered body type: text/plain
```

```
I am not able to find the software of this message.Can you send to me it?
Is the EVM working?Did you check gruh software?
Thank's in advance.
IK4IRO


----------
Da:             Steven R. Bible[SMTP:srbible@gate.net]
Inviato:        domenica 11 maggio 1997 22.07
A:              dsp@tapr.org
Oggetto:        [DSP:476] The EVM PSK Modem works!

At about 14:30 EDT I was able to track AO-16 and capture the downlink on
the DSP56002EVM running N1OWU's PSK modem.  It was exciting to see it work.
 What I set up was quick and dirty.  I wanted to see it work even before I
started working on the radio interface.

In a nut shell, I hooked up the speaker out of the radio in to IN on the
EVM left channel.  I loaded BIOS2.CLD, PSK.CLD, and FLSHBOOT.CLD.  GO $3400
and flashed the EEPROM.  Reset, move the serial cable over to the SCI port.
 I used WiSP set to a TNC2.  I had to manually tune the radio until I saw
something print out.  But it was enough to see that the EVM works.  So the
next step is to prototype the radio interface... and

learn how to use the DL.EXE program.  I would like to set up WiSP to run
DL.EXE before a satellite pass with the appropriate modem (G3RUH or PSK).
This way I'll be one step closer to hands off operation.  Anyone already
doing this?

So a question to the group, in using WiSP, I take it that selecting TNC2 is
fine.  I thought WiSP had a KISS mode, but I guess not.  In reading the
help file it just says if you don't have one of the listed TNCs then
default to the TNC2.  I wonder what is coming out of WiSP then, such as
WiSP commanding the TNC2 into KISS mode before the pass and out of KISS
mode after the pass.  I also see on MSPE that it says it has commanded the
TNC into FULL DUPLEX mode.  So I fear that commands are going to the EVM,
but hopefully ignoring them.



 - Steve, N7HPR
```

(n7hpr@tapr.org)

55. Adventures of the EVM with Satellites

From: "Steven R. Bible" <srbible@gate.net>
Date: Sat, 31 May 1997 14:05:51 -0400
To: dsp@tapr.org
Cc: Vittorio Moretti <cma.software@orion.it>
Message-ID: <3.0.1.32.19970531140551.007ce4a0@pop.gate.net>
Rendered body type: text/plain

At 08:42 AM 5/31/97 -0500, you wrote:
>I am not able to find the software of this message.Can you send to me it?
>Is the EVM working?Did you check gruh software?
>Thank's in advance.
>IK4IRO

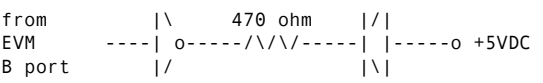
Vittorio, the N1OWU files are located at:

    ftp://ftp.tapr.org/tapr/SIG/dsp/recent_uploads/n1owu_11.zip

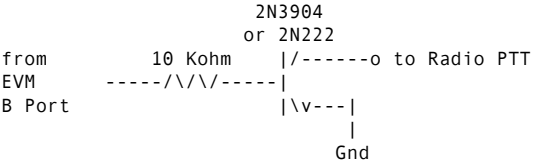
the file is 378 kilobytes. Please try to ftp it first. It is too large to send as an attachment.

Yes my EVM is working. The PSK and FSK1200 modems work fine on the audio lines of my radios (Kenwood TR-751 and TR-851). I am still trying to get the G3RUH to work from the line levels. I haven't figured out how to change the RxGain levels in the program (or what level I need). I have experimented (re-assembling) a little but still haven't hit it just right, yet. I know that my radios work at 9600 bps because I have a MFJ 1274 with the MFJ-9600 installed (a G3RUH modem). I would also like to get the PSK and FSK1200 modems working from line levels, this would make the wiring less troublesome.

I have a radio interface prototyped and it works fine. I am using two ULN2803A for LED drivers. A sample circuit is:



For the PTT and mic UP/DOWN signals:



Any ideas on setting the Rx and Tx gains would be appreciated. Also any ideas on the radio interface are welcome. I haven't got my hands on any ULN2595's as Lyle suggested. Another chip to look at is the 7405 (as used in the DPS-93).

73,

 - Steve, N7HPR
 (n7hpr@tapr.org)

56. What's New in DSP

From: dspnews@dspnet.com (by way of Greg Jones, WD5IVD)
Date: Sat, 31 May 1997 14:26:16 -0500
To: " TAPR/AMSAT DSP "<dsp@tapr.org>
Message-ID: <v03020910afb62bd5b4ab@[208.134.134.40]>
Rendered body type: text/plain

Dear Colleague

We want you to know when something noteworthy happens at TechOnLine, the most visited site on the Internet for DSP information.

http://www.techonline.com

The latest version of our newsletter "TechOnLine Review" is online, featuring:

- The DSP Perspective: An Interview with David French from Analog Devices.
- The H.320 Recommendation Overview for Videoconferencing (Andrew Davis, TechOnLine Review)
- Acoustic Room Response Analysis (J, Edwards, Loughborough Sound Images)
- DSP Prospects in Motor Control (Will Strauss, Forward Concepts)
- Thermodynamics, Entropy, DSP Technology and OEM Business (Andrew Davis, TechOnLine Review)

Since May 13, the following two companies have joined TechOnLine. You may now find complete information about any of those companies online at DSPnet (www.dspnet.com or www.techonline.com).

- Innovative Integration
- DSP Research
- DSP Technology
- Z-Domain Technologies

The following companies' web sites had face lifts since May 13, adding more product information than ever before on TechOnLine. Take a look at

- Loughborough Sound Images
- Pentek

The TechOnLine VirtuaLab now offers new sample code available for the c54x.

Since May 1, news announcements have been placed in TechOnLine from the following companies: Analog Devices, Ariel, Bittware, CSPI, Hyperception, Loughborough Sound Images, Spectrum Signal Processing, and General Micro Systems. Take a look at what's new with these and other top DSP companies by going to "what's new" on TechOnLine or DSPnet.

June 1997

Original source file: dsp.9706
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9706

1. Re: [DSP:510] Adventures of the EVM with Satellites

From: dbraun@ichips.intel.com
Date: Mon, 02 Jun 1997 11:11:59 +0300
To: dsp@tapr.org
Message-ID: <199706021942.AA045890524@dtthp135.jf.intel.com>
Rendered body type: text/plain

To check your signal input levels to the EVM, run one of the
little "scope" programs on the EVM while running spy.exe on the
PC. Generally, you want the peak input levels to be maybe 30-50%
of the full-scale input. It is more important to prevent overload
than to worry about too low a level, because there is good
dynamic range in the ADC, and nice 24-bit math in the DSP code.
When you get it figured out, tweak the values of "RxGain" in the
various programs.

Setting the output level is trickier, because you have to know
when you have the right modulation level. Keep in mind that the
output gain of the DAC is pretty accurate, and if you know the
peak digital level, you can accurately predict the peak analog
voltage level. 0 dB of CODEC output attenuation will give you a
2.8V P-P analog output (1.0 V RMS) if you haven't messed with any
of the CODEC initialization code.

Use SPY.EXE to spy on the program's output data if you are
uncertain what the peak digital level is. Of course, you have to
know what signal level your radio wants, but this is a problem no
matter what type of modem you use...

By the way, I did not have to add any amplification or attenuation
between the EVM and my radios, except for the HF output, which has to
be mic-level. But in this case I had already built an anntnuator box
for use with my previous modem...   ALso, I would rather make a software
change/adjustment than a hardware change/adjustment. But that's my
preference... Maybe some other people would be more comfortable simply
adjusting a trimmer pot than editing the source code and recompiling...

Doug
N1OWU

2. Re: Unsubscribe

From: Fred Percvial <save@io.com>
Date: Tue, 03 Jun 1997 11:04:19 +0000
To: dsp@tapr.org
Message-ID: <3393FA33.1C24@io.com>
Rendered body type: text/plain

[Empty message body]

3. Re: [DSP:511] What's New in DSP

From: wa0lhc@juno.com
Date: Sat, 07 Jun 1997 23:40:58 EDT
To: dsp@tapr.org
Message-ID: <19970607.234806.7727.2.WA0LHC@juno.com>
Rendered body type: text/plain

TNX for posting, now to visit the site,
  MAC

On Sat, 31 May 1997 14:38:16 -0500 (CDT) dspnews@dspnet.com (by way of
Greg Jones, WD5IVD) writes:

4. DSP-Based Canadian TimeCode Receiver

From: "Don Elsner" <elsner@alpha1.csd.uwm.edu>
Date: Mon, 9 Jun 1997 22:58:07 -0500
To: <dsp@tapr.org>
Message-ID: <199706100402.XAA21416@batch1.csd.uwm.edu>
Rendered body type: text/plain

the June issue of "Circuit Cellar has the above article and several others
on DSP

topics that might be of interest to the amateur community.

73 - Don KS9F

5. EVM56k interface?

From: "Olaf Fichtner, DL7UND" <h0444xrp@rz.hu-berlin.de>
Date: Sat, 14 Jun 1997 16:19:24 +0200
To: dsp@tapr.org
Message-ID: <1.5.4.16.19970614142059.09f76ed0@popserv.rz.hu-berlin.de>
Rendered body type: text/plain

Hi there!

  I got the 56002EVM and wanted to build up the interface necessary for
radio operation, but there seem to be at least two versions: One is
described by KC7WW and uses only one ULN2803, while there are six pictures
(from ftp.tapr.org) showing a pcb with two ICs and even a few more LEDs
(author unknown). The pictures are named front.jpg, rear.jpg, evmint1.jpg
(same as pcb_btm.jpg) and evmint2.jpg (same as pcb_top.jpg).
  What I like to know is: Where can I find the circuits for the other
interface and which one is better/more popular/recommended? Thanks in advance...

73! de Olaf, DL7UND

...und aus dem Chaos toente eine Stimme und sprach: "Sei froh und laechle,
denn es haette schlimmer kommen koennen." Und ich ward froh und laechelte
und siehe da - es kam schlimmer...

6. Re: [DSP:516] EVM56k interface?

From: "Paulus" <paulstra@xs4all.nl>
Date: Sun, 15 Jun 1997 14:06:56 +0200
To: <dsp@tapr.org>
Message-ID: <199706151208.OAA21620@smtp1.xs4all.nl>
Rendered body type: text/plain

Hallo Olaf,
Ja es gibt mehr versionen von interfaces.

Ich habe der interface von der Johan kc7ww gemacht, und diese ist dan mit
der uln2803A und auf das diagaram stehen schon 2 leds der status led, und
der heratbeat led.
Uaf geliche wiese habe ich dazu gemacht:
der PTT-led (vonab B0), der UP (vonab B1) und der Down led (vonab B2).
Weiter habe ich der roten load led uaf der dsp Bord, verliegt nach das
front, ich kann alos jetzt sehen wenn ich zb. der evm56k debugger
anschliesse an der dsp, dann leuchtet der rote load-led, ich als dann
contact mit der dsp.

Ja weiter ist es notwendig auch der reset ans Front zu machen und einen
audio-loopback switch.
Ja mann noch weiter gehen:
ich habe ans fornt auch einen schalter gemacht um LF-in um zuschalten (
stereo) , LF-out (stereo) und mann auch der kopfhoerer noch ans fornt
machen.
Wann mann dann auch noch der Atmel Flasprom anbriengt, ist es das beste
noch ein schalter zu haben ium der 5 volt (pin 28) ab zuschalten , wann
mann gar nicht will das der flash der einhalt nach der Ram von der dsp
schreibt.

Dann kann mann auch noch ein drehschalter ans Front machen um zu schalten
zwischen den 2 porten der dsp.
mann braucht nur der rxd, txd und ground zu schalten.
Und mann macht dann an der rs232 stellen wo mann der Pc auf anschliesst der
gleiche verbindungen wei es ins diagram von Motorola steht.

Beobachten Sie bitte das der powersupply nirgendwo einen verbingdung mit
masse haben soll, nutzen sie also einen stecker-supply.
Mann kann sehen warum ins diagram von Motorola.

Ich hoffe sie haben an meine Bericht etwas hi,
wenn nicht klar dann hoere ich das gern.

Wir (g3plx, g0tjx, pa0ihd und ich selber pa0ocd) experementieren auf 40
und 80 mit slowbpsk (mit neuenn mode Varicode, aslo nicht wass der sp9vrc
gemacht hat) und auch mit 15 tones qpsk packet ssb.
Wann sie alles drehend haben, schicke ich sie gern der weiteren files.
O ja um zu sehen ob alles lauft, gibt es einen testscsi file, wann sie das
nicht haben , hoere ich das dann wohl.

Vielen 73 und erfolg und der dsp56002 ist einen ufb ding hi, mit diesen dsp
bekommen wir ganz nuenen moden.

cheerio de Paul, pa0ocd

paulstra@xs4all.nl

7. Recent DSP PC plugin options

From: forrerj@peak.org (Johan Forrer)
Date: Sun, 15 Jun 1997 21:25:51 -0800
To: dsp@tapr.org
Message-ID: <199706160412.VAA28253@peak.org>
Rendered body type: text/plain

Hi,

Thought that I would mention some interesting developments mentioned in the
latest issue of Computers & Music magazine (yes - I used to be professional
musician in a previous lifetime.)

1) The "Darla" DSP sound card. Contains a 56301 DSP on a PCI PC interface
card - Win95 Plug&Play. Sports 20-bit analog bit I/O, yes 20 bits! (2 input
channels, 8 output channels) Price around $350 see: http://www.event1.com

2) The "STUDI/O" 16-channel, 24-bit PCI-based DSP card from Sonorus. From
the picture looks like another 56300-based design. See
http://www.sonorus.com - no price mentioned.

3) The Audiobahn PCI-based DSP card. As above, looks like another
56300-based design. Does'nt mention a web page or price. Guess they want you
to give then a call.

4) Turtle Beach also shows off their new "Pinnacle Project" cards. These use
the 56002 and also uses a 20-bit A/D CODEC. In addition they support large
memory caches consisting of SIMM modules that the user can plug in. I have
seen these cards in the local stores priced in the $400-$600 range. See
their web site hppt://www.tbeach.com for further information.

I think the time has come to start looking for 20-bit A/D devices and
utilize the ~97dB dymamic range that they offers. Would be wonderful to have
is some receiver designs. It is also remarkable that most of these cards now
seem to based on the glue-less PCI interface offerend by the 56300 family -
is this a new trend?

--Johan, KC7WW

8. Re: [DSP:518] Recent DSP PC plugin options

From: Jeff King <jeff@mich.com>
Date: Mon, 16 Jun 1997 02:11:23 -0400
To: dsp@tapr.org, dsp@tapr.org
Message-ID: <2.2.32.19970616061123.006d7724@mail.mich.com>
Rendered body type: text/plain

At 11:14 PM 6/15/97 -0500, Johan Forrer wrote:

>
>I think the time has come to start looking for 20-bit A/D devices and
>utilize the ~97dB dymamic range that they offers. Would be wonderful to have
>is some receiver designs. It is also remarkable that most of these cards now
>seem to based on the glue-less PCI interface offerend by the 56300 family -
>is this a new trend?
>
>--Johan, KC7WW

Actually, I've been meaning to pose this question for quite some time. I'm
looking for a DSP solution for the PC with supporting software. Specifically,
WIN95. I need DC coupling on the A/D's and at least 16 bit resolution.
I also need one high speed channel (8-10 bit) to sample video with. 4-6
16 bit channels (audio) and one video channel.

Is there a affordable card out there like this? More importantly, is
there support software out there for something like this? (just the
hooks to talk to the card from WIN95).

The intended application is a automated audio/video test fixture.

-Jeff

9. Re: [DSP:519] Re: Recent DSP PC plugin options

From: forrerj@peak.org (Johan Forrer)
Date: Mon, 16 Jun 1997 08:39:31 -0800
To: dsp@tapr.org
Message-ID: <199706161526.IAA12757@peak.org>
Rendered body type: text/plain

Jeff,

> I need DC coupling on the A/D's and at least 16 bit resolution.
>I also need one high speed channel (8-10 bit) to sample video with. 4-6
>16 bit channels (audio) and one video channel.

>
>Is there a affordable card out there like this? More importantly, is
>there support software out there for something like this? (just the
>hooks to talk to the card from WIN95).

Audio CODECS that are used on sound cards, generally was not intended to work down to DC, so are not of much use in taking static DC measurements. For video, you also would need something that can sample above the "CD-standard" (48 kSPS) rate that audio CODECs offer.

There are several of the data aquisition board suppliers that offer DSP-based systems that would meet your requirements. For example, Innovative Integration has some TI products that you can look at (http:www.innovative-dsp.com). Dave Jervis, at DSP Solutions, also has a TI 320C3x DSP module that can take a piggy-back A/D that would meet your specification - affordably priced too. For Win95 software, it depends. Nothing is easy when you want to do your own thing.

Good luck.

--Johan

10. Re: [DSP:520] Re: Recent DSP PC plugin options

From: jeff@mich.com
Date: Mon, 16 Jun 1997 20:58:49 -0400
To: dsp@tapr.org, forrerj@peak.org
Message-ID: <2.2.32.19970617005849.006cd368@mail.mich.com>
Rendered body type: text/plain

At 10:26 AM 6/16/97 -0500, Johan Forrer wrote:

>Audio CODECS that are used on sound cards, generally was not intended to
>work down to DC, so are not of much use in taking static DC measurements.
>For video, you also would need something that can sample above the
>"CD-standard" (48 kSPS) rate that audio CODECs offer.

In retrospect, I may be able to get one of these type boards to function. Are you aware of any sound blaster type programming libraries for WIN95? I program in Delphi 2.0 but it will work with .dll files also.

I'm most interested in comparing audio phases as well as doing spectral analyze using FFT. Also just to get my feet wet in dsp techniques. I may not need to analyze baseband video as I earlier thought or at the very least I can use burst techniques to look at the parts I want.

Thank you

-Jeff
Regards,


```
-----------------------------------
| Jeff King      Aero Data Systems |
| jeff@mich.com  P.O. Box 510895   |
| (810)471-1787  Livonia, MI 48151 |
|F(810)471-0279  United States     |
-----------------------------------
```


11. Re: [DSP:520] Re: Recent DSP PC plugin options

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Tue, 17 Jun 1997 09:56:04 +0200
To: dsp@tapr.org
Message-ID: <33A64314.244F@ife.ee.ethz.ch>

Rendered body type: text/plain

> Audio CODECS that are used on sound cards, generally was not intended to
> work down to DC, so are not of much use in taking static DC measurements.
> For video, you also would need something that can sample above the
> "CD-standard" (48 kSPS) rate that audio CODECs offer.

Analog Devices and Crystal Chips can be used down to DC although DC offset performance might not be very good. Cheap boards often only contain one single chip without much external components, so it is easy to remove the AC coupling cap. I have once modified such a soundcard to use a bigger AC coupling cap to lower the edge frequency.

"Soundcard programming libs under Win95": see MMSYSTEM. (WaveIn and WaveOut functions if I remember correctly).

Tom

12. Re: [DSP:522] Re: Recent DSP PC plugin options

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Tue, 17 Jun 97 09:51:36 CDT
To: dsp@tapr.org
Message-ID: <9706171451.AA23128@aa5df.sps.mot.com>
Rendered body type: text/plain

I believe most sound cards (and consumer electronics) utilize sigma-delta analog to digital converters. These sigma-delta converters are cheap, and change the quantization noise shape, therefore they are widely used. These converters cannot by nature sample down to DC. I believe the Crystal 4215 used on the 56002EVM has a lower cutoff of about 5 Hz.

You will probably need a A/D for instrumentation.

73,
Tim

13. Re: [DSP:522] Re: Recent DSP PC plugin options

From: jeff@mich.com
Date: Tue, 17 Jun 1997 11:08:22 -0400
To: dsp@tapr.org
Cc: sailer@ife.ee.ethz.ch
Message-ID: <2.2.32.19970617150822.006ea9e0@mail.mich.com>
Rendered body type: text/plain

At 02:59 AM 6/17/97 -0500, Thomas Sailer wrote:

>
>Analog Devices and Crystal Chips can be used down to DC although DC offset
>performance might not be very good. Cheap boards often only contain one
>single chip without much external components, so it is easy to remove the
>AC coupling cap. I have once modified such a soundcard to use a bigger
>AC coupling cap to lower the edge frequency.
>
>"Soundcard programming libs under Win95": see MMSYSTEM. (WaveIn and WaveOut
>functions if I remember correctly).
>
>Tom

Does MMSYSTEM allow you to use the soundcard as a A/D device directly? I seem to recall last time I used it it was just a way to capture and playback .wav files. I want to be able to look at absolute audio levels (voltage level) at any sample in time. I'll look at MMSYSTEM again.

14. DSP Experimenter's Web Page Updated

From: "Steven R. Bible" <srbible@gate.net>
Date: Tue, 17 Jun 1997 22:39:52 -0400
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970617223952.007d1c50@pop.gate.net>
Rendered body type: text/plain

Hello Everyone, I've spent the evening updating the TAPR DSP Experimenter's Web Page. The URL is:

    http://www.tapr.org/dsp/

As always, any suggestions or comments are welcome. I still have more to do such as:

- organize software by function
- Analog Devices EZ-KIT web page
- add DSP related QEX articles
- update the DSP56002EVM page

Enjoy,

- Steve, N7HPR
(n7hpr@tapr.org)

15. Re: [DSP:476] DSP digest 134

From: jedavis@fia.net
Date: Fri, 20 Jun 1997 09:56:41 -0700
To: dsp@tapr.org, lylej@azstarnet.com
Message-ID: <Chameleon.866826080.jedavis@system_one>
Rendered body type: text/plain

> Date: Sat, 10 May 1997 19:01:05 -0700
> From: Lyle Johnson <lylej@azstarnet.com>
> To: dsp@tapr.org
> Subject: Re: DSP56002EVM Radio Interface
> Message-ID: <3.0.32.19970510185757.006e86e8@pop.azstarnet.com>
>
> >I have been warned not to use ULN2003's for the UP and DOWN pushbuttons,
> >but that they are fine with LEDs. So I will use either 7404's, 7405's, or
> >2N3406's (whatever is in my junk box) for mic click up and down and the
> >ULN2003's for the LEDs.
> >
> >Any other thoughts and/or corrections??
>
> Steve,
>
> The ULN2003 and its ilk are darlington-ouput open-collector drivers.
> Because of the darlington configuration, they won't pull a line below about
> 0.8 volts. Some radios rebel at this level for PTT, U/D, etc.
>
> However, you *can* use the ULN2595. It has eight (8) open-collector NPN
> outputs, rated to 200 mA, 20V open circuit, etc. Note that it is a
> non-inverting buffer.
>
> ICOM radios (used to) use a 3-level interface for UP/DOWN, so open
> collectors are the easiest way to go.
>
> Cheers,
>
> Lyle

Lyle do you know who makes the ULN2595? I have found a source of them but the
seller doesn't know who made them. I am looking for a data sheet. Preferably
available via the net.

Thinking about an interface for the EVM.

Thanks es 73, Jack

16. Re: [DSP:526] Re: DSP digest 134

From: "Frederick M. Spinner" <fred@tekdata.com>
Date: Fri, 20 Jun 1997 12:39:33 -0500 (CDT)
To: dsp@tapr.org
Message-ID: <Pine.LNX.3.95.970620123802.4366B-100000@tekdata.com>
Rendered body type: text/plain

> >
> > However, you *can* use the ULN2595. It has eight (8) open-collector NPN
> > outputs, rated to 200 mA, 20V open circuit, etc. Note that it is a
> > non-inverting buffer.
> >
>
> Lyle do you know who makes the ULN2595? I have found a source of them but the
> seller doesn't know who made them. I am looking for a data sheet. Preferably
> available via the net.
>

ULN series components are made by Allegro (formerly Sprague)

2N3904's work perfectly fine for me tho, much easier to get!

Fred M. Spinner, KA9VAW
fred@tekdata.com

17. Re: [DSP:476] DSP digest 134

From: Lyle Johnson <lylej@azstarnet.com>
Date: Fri, 20 Jun 1997 18:16:11 -0700
To: jedavis@fia.net, dsp@tapr.org
Message-ID: <3.0.32.19970620180355.006eda7c@pop.azstarnet.com>
Rendered body type: text/plain

>Lyle do you know who makes the ULN2595? I have found a source of them but
the
>seller doesn't know who made them. I am looking for a data sheet. Preferably
>available via the net.

Jack,

Made by Allegro Microsystems, Inc. (used to be Sprague Semiconductor Group). They're carried bt Arrow/Schweber, so maybe their web site will give you a pointer for a data sheet...

Cheers,

Lyle

18. [HFSIG:2158] PSK experiments.

From: forrerj@peak.org (Johan Forrer) (by way of Greg Jones, WD5IVD)
Date: Fri, 20 Jun 1997 20:42:15 -0500
To: " TAPR/AMSAT DSP "<dsp@tapr.org>
Message-ID: <v03020961afd0e1ee4678@[208.134.134.40]>
Rendered body type: text/plain

Hi folks,

I have been following the progress of a number of amateurs in the UK and Europe on the development of a new PSK modem for HF. This modem runs at 31 BPS en uses some novel encoding - this is probably the closest thing to replacing RTTY for round-table QSO's, except that it is so much more robust and noise tolerant.

The guys on the other side of the Atlantic are listening for my beacon on 14070 USB which runs during the hours 2000 - 0200 UTC. Listen for the PSK carrier and my CW-id.

If anyone else is interested in participating; all you need is a 56K EVM, a PC, and tranceiver. Let me know and I'll be happy to provide the software to run it - the software is really neat and has a nice-looking "cockpit." This code was written by Peter Martinez, G3PLX, and modified by Izak, PA0IHD to run a beacon.

Let me know if you hear anything.

73

--Johan, KC7WW

19. Floating Point DSP Survey

From: survey@dspnet.com (by way of Greg Jones, WD5IVD)
Date: Sat, 21 Jun 1997 02:36:52 -0500
To: " TAPR/AMSAT DSP "<dsp@tapr.org>
Message-ID: <v0302096cafd132bb476f@[208.134.134.40]>
Rendered body type: text/plain

For all you DSPers out there.

Just got this in the mail and thought I would share.

Cheers - Greg

Dear Colleague

TechOnLine is asking your help in shaping future DSP products. We are conducting an engineering survey to compile a list of the features that should be included in future DSP products. This is your opportunity to influence future products to better satisfy your requirements. If you would like to participate in this survey you will be eligible to win one of four US ROBOTICS Personal Edition PalmPilots. Your answers will be kept completely confidential, but the results will be shared with the leaders in DSP design and development. These leaders are interested and committed to

hearing your feedback and having it strongly influence future
developments.

The US ROBOTICS Personal Edition PalmPilots include a Date Book,
Address Book, To Do List, Memo Pad, Calculator, Games, HotSync, and
much more. It has the capacity for 2500 addresses, 2400 appointments,
500 items and 500 memos, a display with 160 by 160 pixels and an RS-
232C 9-pin connector and 25-pin adapter. You can learn more about the
PalmPilots by going to US Robotics Web site at:

http://www.usr.com/palm/5034.html

In order to qualify for the PalmPilots you are requested to fill out the
questionnaire before July 1, 1997. You will also be asked to enter your
email address. This is to avoid duplicate entries and to be able to notify
you if you have won one of the PalmPilots. In order to assure the validity
of the data, multiple entries will be disqualified from the survey and the
raffle. Your email address will not be used for junk email.

You may complete the questionnaire by choosing one of the following
three methods.

1. On the web at the URL http://www.techonline.com/survey/
2. By replying to this email, we will email the survey back to you.
   You can then email that survey back to us after you have
   answered the questions.
3. By replying to this email, we will email the survey back to you.
   You can then print that survey out and fax or mail it to
   TechOnLine. Our fax number is +1 (617) 899-4449 and our
   mailing address is 296 Newton Street, Suite 350, Waltham, MA
   02154, USA.

The survey has been carefully designed to take less than fifteen minutes to
complete. The opportunity to have DSPs more closely satisfy your
requirements is well worth that investment in time (not to mention the
possibility of the free PalmPilot).

Thank you for your time, and we look forward to seeing the results of the
survey.

20. Need EVM Docs :-(

From: Lyle Johnson <lylej@azstarnet.com>
Date: Sat, 21 Jun 1997 08:39:15 -0700
To: dsp@tapr.org
Message-ID: <3.0.32.19970621083847.00705084@pop.azstarnet.com>
Rendered body type: text/plain

Hello!

I am *finally* getting around to firing up my EVM and looking at modifying
some of the 9600 bit/sec code to make it suitable as a RUDAK command
station component (e.g., embed the reset sequences, etc.).

Unfortunately, in the remodelling effort we did on the house last year, I
managed to separate the small docuement that includes the EVM schematic,
jumper meanings, connector pinouts, etc., from the rest of the EVM data.

I checked the Motorola Web Site, but the "EVM Manual" just links to a
"Quick Start" document, not the EVM board information itself.

If anyone on this list has this document and could FAX it to me, or scan
and EMAIL or ??? I would be most grateful.

My home FAX number is (520) 749-2234, my EMAIL address in this message header.

Thank you very much for your assistance!

Lyle

21. Re: Docs

From: Lyle Johnson <lylej@azstarnet.com>
Date: Sat, 21 Jun 1997 10:10:29 -0700
To: dsp@tapr.org
Message-ID: <3.0.32.19970621100842.00703acc@pop.azstarnet.com>
Rendered body type: text/plain

Thank you, Johan, for sending me the informaiton I needed.

Cheers,

Lyle

22. Re: [DSP:532] Re: Docs

From: Lyle Johnson <lylej@azstarnet.com>
Date: Sat, 21 Jun 1997 12:52:31 -0700
To: dsp@tapr.org
Message-ID: <3.0.32.19970621125220.007182bc@pop.azstarnet.com>
Rendered body type: text/plain

And thanks to the other folks who FAXed, emailed, etc. I'm well covered, now!

Chers,

Lyle

23. Re: [DSP:529] [HFSIG:2158] PSK experiments.

From: Eduardo Jacob <edu@kender.es>
Date: Sun, 22 Jun 1997 14:58:51 -0100
To: dsp@tapr.org
Message-ID: <3.0.1.32.19970622145851.006aa59c@kender.es>
Rendered body type: text/plain

>If anyone else is interested in participating; all you need is a 56K EVM, a
>PC, and tranceiver. Let me know and I'll be happy to provide the software to
>run it - the software is really neat and has a nice-looking "cockpit." This
>code was written by Peter Martinez, G3PLX, and modified by Izak, PA0IHD to
>run a beacon.

I would like to try it. Are the QSO in the same frequency 14070 or do they use another freq?. I am in thier side of the atlantic.

Eduardo

24. Re: [DSP:534] Re: [HFSIG:2158] PSK experiments.

From: "Paulus" <paulstra@xs4all.nl>
Date: Sun, 22 Jun 1997 18:06:33 +0200
To: <dsp@tapr.org>
Message-ID: <199706221606.SAA22738@smtp2.xs4all.nl>
Rendered body type: text/plain

Hello Eduardo,

In Europe there are slowbpsk-nets:

On sundays: 10.00 UTC   7.035 carrier
                    19.00 UTC   3.580 carrier

on wednesday: 19.00 UTC 3.580 carrier
stations qrv: g3plx, g0tjz, g3fhl, pa0ihd, pa0ocd

Used mode : slowbpsk varicode 31.25 baud
But we can change to ascii coding when needed.(for the ones using the
orignal sp9vrc slowbpsk programm)

For tuning in there is some experience needed (on 1hz !), but the program
gives on the dsp56002evm on the headphones
an fb tuning in tone. Furthermore, once tuned in and using the AFC there is
no problem unlees the TRX drifts too much.
The tx/rx qrg on the dsp can be tuned in 1 hz steps, the afc tunes in 0.1
hz steps.
It is really quite easy to get qrv with slowbpsk on the dsp56002, there is
even no interface-unit needed, you can use vox ptt controll.
By the way the orignal sp9vrc programm from Pawel, works with the ascii
coding and is compatible.

Hope to see you soon Eduardo,
de Paul, pa0ocd

paulstra@xs4all.nl

25. Re: [DSP:529] [HFSIG:2158] PSK experiments.

From: "Donald E. Haselwood" <k4jpj@appstate.campus.mci.net>
Date: Sun, 22 Jun 1997 16:14:24 -0400
To: dsp@tapr.org
Message-ID: <199706222014.QAA03347@aus-d.mp.campus.mci.net>
Rendered body type: text/plain

>The guys on the other side of the Atlantic are listening for my beacon on
>14070 USB which runs during the hours 2000 - 0200 UTC. Listen for the PSK
>carrier and my CW-id.

>73
>
>--Johan, KC7WW
>

Johan,

What is the sequence on your beacon, e.g. on for 5 minutes, CW-ID, then off
for 5, etc? I've been listening at various time, but I haven't heard
anything. I assume it sounds similar to SLOWBPSK.

73's
Don, W4GWC

26. Re: [DSP:536] Re: [HFSIG:2158] PSK experiments.

From: forrerj@peak.org (Johan Forrer)
Date: Sun, 22 Jun 1997 15:01:34 -0800
To: dsp@tapr.org
Message-ID: <199706222201.PAA21320@peak.org>
Rendered body type: text/plain

Don,

>
>What is the sequence on your beacon, e.g. on for 5 minutes, CW-ID, then off
>for 5, etc? I've been listening at various time, but I haven't heard
>anything. I assume it sounds similar to SLOWBPSK.
>
>73's
>Don, W4GWC
>
>

The beacon is synchronized to come on at UTC minutes, every minute, during
2000 - 0200 UTC. It transmits a message in Varicode, and gives a CW-id at
the end. Frequency is 14070 (carrier).

Yes, it sounds like SLOWBPSK, except that it uses an encoding scheme that is
more tolerant than the asynch stop/start used in ASCII.

Hope you copy it.

73,

--Johan

27. DSP56002EVM group purchase

From: Alberto di Bene <dibene@usa.net>
Date: Mon, 23 Jun 1997 11:45:05 +0200
To: dsp@tapr.org
Message-ID: <33AE45A1.77E4@usa.net>
Rendered body type: text/plain

Is there any plan to do a group purchase of the DSP56002EVM ?
While in the US it can be bought for 99 USD, in Europe the Motorola
distributors sell it for a much higher price, more than the double...

At 99 USD I am willing to buy one, but not at the ridiculous prices
asked here.

73 de
Alberto di Bene, I2PHD   dibene@usa.net

28. Re: [DSP:538] DSP56002EVM group purchase

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Mon, 23 Jun 97 09:46:53 CDT
To: dsp@tapr.org
Message-ID: <9706231446.AA11319@aa5df.sps.mot.com>
Rendered body type: text/plain

>
> Is there any plan to do a group purchase of the DSP56002EVM ?

I'm afraid not...

> While in the US it can be bought for 99 USD, in Europe the Motorola

$99?? Really! Thats great!

> distributors sell it for a much higher price, more than the double...
>
> At 99 USD I am willing to buy one, but not at the ridiculous prices
> asked here.

Try purchasing one from a US distributor. I don't know if the cost of
shipping will increase the cost to the point that it is cheaper to
purchase it in Europe, but it is worth a try.

73,
tim

29. Re: [DSP:539] Re: DSP56002EVM group purchase

From: "Alan J. Eynon" <aeynon@micro.ti.com>
Date: Mon, 23 Jun 1997 10:29:54 -0500
To: dsp@tapr.org
Cc: aeyn@micro.ti.com
Message-ID: <3.0.32.19970623102953.006b5078@pcmail.micro.ti.com>
Rendered body type: text/plain

>Try purchasing one from a US distributor. I don't know if the cost of
>shipping will increase the cost to the point that it is cheaper to
>purchase it in Europe, but it is worth a try.

This is actually a very good idea. When I was in the UK, typical pricing
was the US price, but with the dollar cost marked as pounds Sterling -
roughly a 60% mark-up. Then you paid shipping, customs duty, etc.. Buying
direct from the US saved a lot of that mark-up. Unfortunately, most companies
in the US either have overseas branches, affiliates, or distributors, with
whom they have sales agreements that expressly forbid the parent company
from poaching sales on the branch/affiliate/distributor's turf. Most often
the US company can only sell to a US destination.

73,
Alan

Software Development Systems, Stafford, Texas Instruments, +1 281-274-2943

"DESTROY 99% OF KNOWN HOUSEHOLD PESTS WITH PRE-SLICED, RUSTPROOF, EASY
 TO HANDLE, LOW CALORIE SIMPSON'S INDIVIDUAL EMPEROR STRINGETTES, FREE
 FROM ARTIFICIAL COLORING (AS USED IN HOSPITALS)." -- Monty Python

30. Participation of HF PSK tests in USA

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 24 Jun 1997 09:17:17 -0800
To: DSP@tapr.org, HFSIG@tapr.org
Message-ID: <199706241616.JAA05465@peak.org>
Rendered body type: text/plain

Hi folks,

I would very much like do some local PSK testing. Is there anyone that
perhaps are set up to run some tests, preferably on the west coast, but
elsewere in US would be OK too.

Perhaps we can set aside a day/time for a round table QSO using the existing
31 baud PSK and also the parallel tone system.

Please e-mail me directly - I'll post a notice when we get something arranged.

Thanks much for your interest.

Johan, KC7WW

31. EVM56K for sale

From: Kory Hamzeh <kory@avatar.com>
Date: Thu, 26 Jun 1997 17:57:31 -0700 (PDT)
To: dsp@tapr.org

Message-ID: <Pine.BSI.3.91.970626175558.694B-100000@avatar.avatar.com>
Rendered body type: text/plain

I have a EVM56K here which is gathering dust. It includes all of the docs
and software. This was not through the TAPR purchase. I would like to get
$125 + shipping for it. It has been socketed for the flash chip.

Thanks,
Kory
AC6RN

32. Listproc

From: Tim Baggett <tim@acca.nmsu.edu>
Date: Sun, 29 Jun 1997 14:10:45 -0600 (MDT)
To: dsp@tapr.org
Message-ID: <Pine.GSO.3.96.970629140921.26189A-100000@murdrum.NMSU.Edu>
Rendered body type: text/plain

The listproc daemon on the TAPR server quit running for a few days. If you
tried emailing to the DSP list during this time, you may want to resubmit
if it did not go through.

73,
Tim

33. EVM56K for sale

From: Kory Hamzeh <kory@avatar.com>
Date: Sun, 29 Jun 1997 14:45:27 -0700 (PDT)
To: dsp@tapr.org
Message-ID: <Pine.BSI.3.91.970629144458.14252B-100000@avatar.avatar.com>
Rendered body type: text/plain

I have an EVM56K here which is gathering dust. It includes all of the docs
and software. This was not through the TAPR purchase. I would like to get
$125 + shipping for it. It has been socketed for the flash chip.

Thanks,
Kory
AC6RN

34. Re: EVM56K for sale

From: Mark Fellhauer <sparkfel@primenet.com>
Date: Sun, 29 Jun 1997 15:33:55 -0700
To: dsp@tapr.org
Message-ID: <3.0.2.32.19970629153355.006abc04@pop.primenet.com>
Rendered body type: text/plain

At 07:55 AM 6/29/97 -0500, you wrote:
>
>I have a EVM56K here which is gathering dust. It includes all of the docs
>and software. This was not through the TAPR purchase. I would like to get
>$125 + shipping for it. It has been socketed for the flash chip.
>

I'd be interested in it, but I'm kinda new to DSP. Perhaps you could tell
me the capabilities of this TNC.

73,

Mark
KC7BXS
sparkfel@primenet.com

35. Misc tidbits.

From: forrerj@peak.org (Johan Forrer)
Date: Mon, 30 Jun 1997 10:30:58 -0800
To: dsp@tapr.org
Message-ID: <199706301729.KAA24793@peak.org>
Rendered body type: text/plain

Hi all,

I have two items of general interest:

1) This past weekend I purchased an ISA-based PC soundcard at a local Fred
Meyer for $30. This little gem contains the new AD1845, which may be
programmed to be hardware compatble with the older AD1848 and Crystal
CS4231. The other interesting feature is that it has a mode where one can
set the sample rate between 4k and 50kSPS in 1 Hz steps! Would that not be

nice to solve those bit jitter problems on 9600 baud modems. This part has
fairly good support as far as device drivers for DOS/Windows and Linux. How
they can produce it for the price is a mystery.

2) The new Analog Devices SHARC 21061, 32-bit floating point EZ-KIT is out -
it will be available at dealers during August. This EVM contains a 120
MFLOPS DSP chip and CODEC. Price is $179 and contains an assembler,
simulator, and apparently a C compiler - sounds nearly too good to be true.
However, parts for production is rather expensive at around $100. Anyway,
the EZ-KIT probably would be ideal for certain amateur projects.

Sounds like fun?

--Johan, KC7WW

36. Re: [DSP:546] Misc tidbits.

From: RLANIER@mailb.harris.com (RLANIER)
Date: Mon, 30 Jun 1997 16:20:33 -0400
To: dsp@tapr.org
Message-ID: <3b815910@mailb.harris.com>
Rendered body type: text/plain

#2 sounds really good to me. It would be nice to use a 32-bit floating
point processor for advanced filtering and modulation. And with a C
compiler, what more do you want?

Tony

_____ Reply Separator _____
Subject: [DSP:546] Misc tidbits.
Author: dsp@tapr.org at smtp
Date: 6/30/97 12:31 PM

Hi all,

I have two items of general interest:

1) This past weekend I purchased an ISA-based PC soundcard at a local Fred
Meyer for $30. This little gem contains the new AD1845, which may be
programmed to be hardware compatble with the older AD1848 and Crystal
CS4231. The other interesting feature is that it has a mode where one can
set the sample rate between 4k and 50kSPS in 1 Hz steps! Would that not be
nice to solve those bit jitter problems on 9600 baud modems. This part has
fairly good support as far as device drivers for DOS/Windows and Linux. How
they can produce it for the price is a mystery.

2) The new Analog Devices SHARC 21061, 32-bit floating point EZ-KIT is out -
it will be available at dealers during August. This EVM contains a 120
MFLOPS DSP chip and CODEC. Price is $179 and contains an assembler,
simulator, and apparently a C compiler - sounds nearly too good to be true.
However, parts for production is rather expensive at around $100. Anyway,
the EZ-KIT probably would be ideal for certain amateur projects.

Sounds like fun?

--Johan, KC7WW

July 1997

Original source file: dsp.9707
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9707

1. [HFSIG:2213] Keyboard-to-Keyboard Bandwidth

From: kl7ev@actis.polarnet.com
Date: 1 Jul 1997 18:24:38 -0800 (AST)
To: dsp@tapr.org
Message-ID: <199707020534.AAA19135@tapr.org>
Rendered body type: text/plain

Alan Bloom wrote:

HF>Why is 900 bps needed for keyboard-to-keyboard conversations? That's
HF>equivalent to about 900 wpm, which is a little faster than most of us
HF>can type!

HF>Alan Bloom N1AL

I think you need to check your math, 900bps equates to around 80 to 100
Characters per second or roughly 16 word per minute. Well within typing
speed!

       - Greg -
---
kl7ev
---

2. EVM56K for sale, again

From: Kory Hamzeh <kory@avatar.com>
Date: Wed, 2 Jul 1997 15:23:32 -0700 (PDT)
To: dsp@tapr.org, hfsig@tapr.org
Message-ID: <Pine.BSI.3.91.970702151522.11415A-100000@avatar.avatar.com>
Rendered body type: text/plain

Sorry for posting this the second time. The buyer who was hot on buying
this from me stopped responding all of the sudden.

I have an EVM56K here which is gathering dust. It includes all of the docs
and software. This was not through the TAPR purchase. I would like to get
$125 + shipping for it. It has been socketed for the flash chip.

Thanks,
Kory
AC6RN

3. (pas d'objet)

From: Caron Patrick <f1smf@club-internet.fr>
Date: Sat, 05 Jul 1997 20:50:46 -0700
To: dsp@tapr.org
Message-ID: <33BF1616.33AC@club-internet.fr>
Rendered body type: text/plain

Geoff Bagley wrote:
>
> I understand that you have a mailing list dealing with the applications
> of DSP to Amateur Radio.
unsuscribe

4. DSP and TOR (AMTOR, SITOR)

From: Ken Harris <kjh@surf.shoreline-studios.com>
Date: Tue, 08 Jul 1997 10:37:00 -0700
Cc: dsp@tapr.org
Message-ID: <33C27ABC.41C6@shoreline-studios.com>
Rendered body type: text/plain

I'm interested in doing AMTOR, and I'm interested
in doing "soft error correction".

        I have a Motorola EVM56002, but I haven't found
AMTOR software (I did find the RTTY.ASM, but the one I found
was recieve only and didn't do soft error correction).

        What's the "hot setup" for TOR these days? I'd like
to use a DSP technique (but the DSP93 is too expensive).

Are any of the "sound card" techniques ready for prime time?
The AN93 looks good, but is an analog technique.

Ken J. Harris   voice: 415/969-7896 x 15   fax: 415/969-7864
mailto:kjh@shoreline-studios.com   http://www.shoreline-studios.com
snail mail: 1804 N. Shoreline Blvd, Ste 240, Mountain View, CA 94043
ICBM: 37 25.10' N, 122 04.67' W

5. Re: [DSP:551] DSP and TOR (AMTOR, SITOR)

From: Doug Braun <dbraun@scdt.intel.com>
Date: Tue, 08 Jul 1997 11:30:39 -0700
To: dsp@tapr.org, kjh@surf.shoreline-studios.com
Cc: dbraun@scdt.intel.com
Message-ID: <199707081830.AA12718@scdt.intel.com>
Rendered body type: text/plain

> I'm interested in doing AMTOR, and I'm interested
> in doing "soft error correction".
>
>   I have a Motorola EVM56002, but I haven't found
>AMTOR software (I did find the RTTY.ASM, but the one I found
>was recieve only and didn't do soft error correction).
>
>   What's the "hot setup" for TOR these days? I'd like
>to use a DSP technique (but the DSP93 is too expensive).
>Are any of the "sound card" techniques ready for prime time?
>The AN93 looks good, but is an analog technique.

Interesting you should mention AMTOR. Several months ago I took
the source code to Johan B. Forrer's (KC7WW) PSATOR and PACTOR
programs and mostly got them to work with the 56002 EVM. These
two MS-DOS programs (available w/ source code at ftp.tapr.org)
implement the AMTOR and PACTOR protocols while communicating
with a soundcard-based modem.

I modified these two programs to communicate with the EVM using
the standard two-wire serial port connection that the EVM
supports, and I wrote a matching modem program for the EVM. The
result is that you can use your EVM to work AMTOR/PACTOR without
having to modify the EVM<->PC wiring. The overall software/EVM
system supports "nice" features like soft error correction.

Currently the PSATOR program (which does AMTOR) seems to work
fine, but the PACTOR program has bugs that allow it to monitor
traffic but not establish a connection. I did most of this work
last winter, and since then I have not had enough time to
experiment with it too much. I'd like to give a copy of the stuff
to several people who would definitely like to try using it, or
who might be able to spend the time to get the remaining bugs out
of the PACTOR program.

At this point, the package is basically "alpha" quality, so I'm
sort of reluctant to simply upload it to ftp.tapr.org before it's
further cleaned up, debugged, and documented. But if you have an
EVM and you already work AMTOR/PACTOR, and/or you are a serious
C++/Assembly/56002 hacker, let me know if you are interested.

Doug Braun
N1OWU

6. Re: [DSP:552] Re: DSP and TOR (AMTOR, SITOR)

From: Richard Mulvey <mulveyr@frontiernet.net>
Date: Tue, 8 Jul 1997 16:43:01 -0400 (EDT)
To: dsp@tapr.org
Message-ID: <199707082043.QAA51326@node5.frontiernet.net>
Rendered body type: text/plain

Hi Doug:

   Well, as a professional programmer who is getting into the EVM, I'd
love to see what you've got. :-)

   My primary platform is Linux, but it would be an interesting exercise to
build a version that can run on DOS/Linux/etc., I think.

- Rich

>

>
>
> > I'm interested in doing AMTOR, and I'm interested
> > in doing "soft error correction".
> >
> >   I have a Motorola EVM56002, but I haven't found
> >AMTOR software (I did find the RTTY.ASM, but the one I found
> >was recieve only and didn't do soft error correction).
> >
> >   What's the "hot setup" for TOR these days? I'd like
> >to use a DSP technique (but the DSP93 is too expensive).
> >Are any of the "sound card" techniques ready for prime time?
> >The AN93 looks good, but is an analog technique.
>
> Interesting you should mention AMTOR. Several months ago I took
> the source code to Johan B. Forrer's (KC7WW) PSATOR and PACTOR
> programs and mostly got them to work with the 56002 EVM. These
> two MS-DOS programs (available w/ source code at ftp.tapr.org)
> implement the AMTOR and PACTOR protocols while communicating
> with a soundcard-based modem.
>
> I modified these two programs to communicate with the EVM using
> the standard two-wire serial port connection that the EVM
> supports, and I wrote a matching modem program for the EVM. The
> result is that you can use your EVM to work AMTOR/PACTOR without
> having to modify the EVM<->PC wiring. The overall software/EVM
> system supports "nice" features like soft error correction.
>
> Currently the PSATOR program (which does AMTOR) seems to work
> fine, but the PACTOR program has bugs that allow it to monitor
> traffic but not establish a connection. I did most of this work
> last winter, and since then I have not had enough time to
> experiment with it too much. I'd like to give a copy of the stuff
> to several people who would definitely like to try using it, or
> who might be able to spend the time to get the remaining bugs out
> of the PACTOR program.
>
> At this point, the package is basically "alpha" quality, so I'm
> sort of reluctant to simply upload it to ftp.tapr.org before it's
> further cleaned up, debugged, and documented. But if you have an
> EVM and you already work AMTOR/PACTOR, and/or you are a serious
> C++/Assembly/56002 hacker, let me know if you are interested.
>
> Doug Braun
> N1OWU
>
>

7. COHERENT BPSK SOFTWARE

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 15 Jul 1997 08:49:05 -0800
To: HFSIG@tapr.org, DSP@tapr.org
Message-ID: <199707151546.IAA01346@peak.org>
Rendered body type: text/plain

Hi all,

I have written some DSP code that turns the EVM into a front end for the
VE2IQ COHERENT
software. If you are not familiar with the COHERENT program: it does BPSK on HF
or Laser beams at several user-selectable rates and a variety of operating
modes,
several of these contain error-control coding. It is really impressive to
see one print
signals that are down into the noise. You also learn how critical it becomes
to hold frequency
to a few Herz.

With this EVM software, you use the same EVM hardware as before. There is
only one
minor modification needed to use the EVM for this work; the ceramic
resonator has to be
replaced with a real 4.0 MHz crystal. I'll include a short note on doing
this simple improvement.

Watch for the announcement for a software package that I will upload to the
DSP area. This
contains source code, loadable modules, and other bits of information on
where to obtain COHERENT

and where to participate in BPSK activities on HF.

Hope to see some real participation in this fun experimental work.

73,

Johan, KC7WW

8. Re: [DSP:554] COHERENT BPSK SOFTWARE

From: tplewis@CCGATE.HAC.COM
Date: Tue, 15 Jul 97 13:18:24 PST8
To: dsp@tapr.org
Message-ID: <9706158689.AA868998772@CCGATE.HAC.COM>
Rendered body type: text/plain

Hello ,

I am new to the group. Could someone explain what an EVM is?

Terry

_____ Reply Separator _____
Subject: [DSP:554] COHERENT BPSK SOFTWARE
Author: dsp@tapr.org at CCGATE
Date: 7/15/97 10:21 AM

Hi all,

I have written some DSP code that turns the EVM into a front end for the
VE2IQ COHERENT
software. If you are not familiar with the COHERENT program: it does BPSK on HF
or Laser beams at several user-selectable rates and a variety of operating
modes,
several of these contain error-control coding. It is really impressive to
see one print
signals that are down into the noise. You also learn how critical it becomes
to hold frequency
to a few Herz.

With this EVM software, you use the same EVM hardware as before. There is
only one
minor modification needed to use the EVM for this work; the ceramic
resonator has to be
replaced with a real 4.0 MHz crystal. I'll include a short note on doing
this simple improvement.

Watch for the announcement for a software package that I will upload to the
DSP area. This
contains source code, loadable modules, and other bits of information on
where to obtain COHERENT
and where to participate in BPSK activities on HF.

Hope to see some real participation in this fun experimental work.

73,

Johan, KC7WW

9. Re: [DSP:555] Re: COHERENT BPSK SOFTWARE

From: steph@elka-gtw.ee.itb.ac.id
Date: Wed, 16 Jul 1997 09:53:16 +0700 (JVT)
To: tplewis@ccgate.hac.com
Cc: dsp@tapr.org
Message-ID: <Pine.BSF.3.91.970716095043.4601A-100000@elka-gtw.ee.itb.ac.id>
Rendered body type: text/plain

On Tue, 15 Jul 1997 tplewis@ccgate.hac.com wrote:
Hello Terry,

>   I am new to the group. Could someone explain what an EVM is?

It is the Evaluation Module for DSP56002, inside it we found the CODEC,
for stereo audio input/output (ADC/DAC). We can debug it through our PC
serially.
That's all

Stephanus

10. COHERENT BPSK interface for EVM

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 18 Jul 1997 15:12:17 -0800
To: HFSIG@tapr.org, DSP@tapr.org
Message-ID: <199707172212.PAA02723@peak.org>
Rendered body type: text/plain

Hi all,

I have uploaded a package containing the DSP source code and notes on how to use the EVM into a front end for the VE2IQ, "COHERENT" BPSK program. This is a somewhat advanced project, so see it as a challenge - OK?

Please look for COHEVM1.ZIP in the TAPR DSP, recent_uploads area.

ftp://ftp.tapr.org/tapr/SIG/DSP/recent_uploads/COHEVM1.ZIP

It will appear there as soon as system admin (Tim Please) has moved it there.

Have fun and enjoy!

--Johan,

11. Totally Accurate Clock

From: Dave Hungerford <pumps@callnet.com>
Date: Fri, 18 Jul 1997 21:21:40 -0400
To: dsp@tapr.org
Message-ID: <33D016A4.F88BC763@callnet.com>
Rendered body type: text/plain

It seems to me that someone could write a very interesting program to measure the propagation times of multi - path signals using the TAC, a computer and a rig. A signal could be sent with its location and start time and the receiving station could measure the time received, distance and transmit the information back to the sender. The transit times would be logged and could be compared with signals sent in the next millisecond, next minute, hour or day to see the transit time variations. The transit time differences would be be very interesting. It would be interesting to see the difference in transit time on different bands. We might be better able to estimate the number of hops signals take. Who knows what we might learn.
The programming is beyond my skill but I am certain there are people on this list could easily do it.

Dave Hungerford

n1olx

12. EVM software on Mac

From: debbie fligor <fligor@uiuc.edu>
Date: Sat, 19 Jul 1997 13:59:25 -0500
To: dsp@tapr.org
Cc: Debbie Fligor <fligor@uiuc.edu>
Message-ID: <v04000801aff3d35c75db@[128.174.67.196]>
Rendered body type: text/plain

Hi,
i've been playing with my 56002 EVM off and on since february, all from my mac. Softwindows 2.0 was quite painful to use, both on my 7200/90 and my new notebook (3400/200). I've read the discussion on mac software on here, and wanted to let everyone know that the new Connectix product 'Virtual PC' seems to do much better.

The response times i'm getting from the DOS program (having restarted win 95 in DOS mode) are roughly equivilent to the 486 i used in my DSP class with the 56001 software. the image load that was taking well over a minute in Softwindows 2.0 took about 20 seconds, and the screen refreshes were only a second or two. the Force Break that was taking over 30 seconds to return, comes back in roughly 5-10 seconds. the wait countdown that was totally finished in softwindows by the time it was ready to display it counts down from 8 before continuing. all in all i find it quite usable. i have 48M of ram, and gave the virtual PC program 32, which lets win95 have ~24 to work with. i was amazed to find that it worked this well, and

thought i'd pass it along for those of you using a mac platform.

std. disclaimer applies -- i've no relation to connectix other than liking
this product.

-debbie
Debbie Fligor, ka9jyi   Network Designer/Engineer, CCSO, Univ. of IL
email: fligor@uiuc.edu   <http://www.uiuc.edu/ph/www/fligor>
"Every keystroke can be monitored. And the computers never forget."

13. Re: Mac software

From: Douglas Repetto <glmrboy@shoko.calarts.edu>
Date: Sat, 19 Jul 1997 19:19:55 -0700 (PDT)
To: dsp@tapr.org
Message-ID: <Pine.SGI.3.91.970719191047.13052A@shoko.calarts.edu>
Rendered body type: text/plain

i finally gave up using softwindows with the evm software. someone gave
me an old 286, and i use that for downloading/debugging - it's much faster
than it was under softwindows/dos - the updates are close enough to
'realtime' to be usefull for audio. of course, the assembler won't work
on a 286, so i still have to assemble on my mac, put it on a floppy and
load it onto the 286. believe it or not, this is still much quicker than
it was before. i'd like to take a look at the new virtualPC stuff. i've
heard it's pretty good.

the real solution, i think, is to just look in the classifieds and pick
up a used 486 for around $200US. as soon as i have a little spare cash
that's what i'll do.

on a related note - i've been writing a lot of code for the new BeOS
recently (www.be.com). it's very fast and fun to code on. i'm thinking
of writing an interface to my EVM for the Be. anyone else playing with
the BeOS?

douglas

++++++++++++++++++++++++++++
joy contains no phosphorus.
++++++++++++++++++++++++++++

>
> Hi,
> i've been playing with my 56002 EVM off and on since february, all from my
> mac. Softwindows 2.0 was quite painful to use, both on my 7200/90 and my
> new notebook (3400/200). I've read the discussion on mac software on here,
> and wanted to let everyone know that the new Connectix product 'Virtual PC'
> seems to do much better.
>
> The response times i'm getting from the DOS program (having restarted win
> 95 in DOS mode) are roughly equivilent to the 486 i used in my DSP class
> with the 56001 software. the image load that was taking well over a minute
> in Softwindows 2.0 took about 20 seconds, and the screen refreshes were
> only a second or two. the Force Break that was taking over 30 seconds to
> return, comes back in roughly 5-10 seconds. the wait countdown that was
> totally finished in softwindows by the time it was ready to display it
> counts down from 8 before continuing. all in all i find it quite usable.
> i have 48M of ram, and gave the virtual PC program 32, which lets win95
> have ~24 to work with. i was amazed to find that it worked this well, and
> thought i'd pass it along for those of you using a mac platform.
>
> std. disclaimer applies -- i've no relation to connectix other than liking
> this product.
>
> ---------
> -debbie
> Debbie Fligor, ka9jyi   Network Designer/Engineer, CCSO, Univ. of IL
> email: fligor@uiuc.edu   <http://www.uiuc.edu/ph/www/fligor>
> "Every keystroke can be monitored. And the computers never forget."
>
>
>
> ------------------------------
>
> End of DSP Digest 173
> **********************
>

14. fsk on dsp56002

From: Konstantinos Banitsas <bany-kostas@mail.u-net.net>
Date: Tue, 22 Jul 1997 17:24:19 +0100
To: dsp@tapr.org
Message-ID: <2.2.32.19970722162419.0069ef6c@mail.u-net.com>
Rendered body type: text/plain

I am a researcher for the University of Portsmouth, currently developing an
"Interactive DSP Lab using motorola's DSP 56002 EVM and Matlab".
The lab will start operating from this September and will accommodate
undergraduate and postgraduate students.
It will involve experiments in DSP such as filter creation, IIR, FIR, FFT,
convolution, correlation FSK, etc.
I was looking for a simple FSK experiment, something that can fsk modulate a
binary sequence, transmitted over a cable to another dsp56002 that, in it's
own turn can demodulated to reconstruct the original binary sequence.
I was immediatly interested in your programm, but it turned out to be much
more compicated than I anticipated. Therefore, I've got like a million
questions about it:

1. You say liitle or almost nothing about the H/W or the nessesary connections
2. What is NOS and what is Spy?
3. Can you give me some steps that I should follow to run a simple experiment?
4. Can you propose any alternative code that may be arround on the Internet,
on that subject (simple fsk modulation using 56002)
5. Does your programm require any special hardware?

(...well...almoost a million)
Please reply as soon as possible as I've banging my head against the wall
for the last week trying to understand your software.

P.S. If you have any other piece of S/W that might be of any help to me,
please attach a copy of it in your reply

Thans in advance,

  Konstantinos Banitsas
  Researcher on Electronic eng.
  University of Portsmouth

  Home address:
  73, Jessie road
  Southsea
  PO4 0EJ England
  Tel:++44 1705 821692

   e-mails: bany@hol.gr
        bany@ee.port.ac.uk
        bany-kostas@u-net.com
  web page: http://users.hol.gr/~bany
---

15. Re: [DSP:561] I have experimented as a Motor stepper controller.

From: steph@elka-gtw.ee.itb.ac.id
Date: Wed, 23 Jul 1997 10:29:50 +0700 (JVT)
To: Konstantinos Banitsas <bany-kostas@mail.u-net.net>
Cc: dsp@tapr.org
Message-ID: <Pine.BSF.3.91.970723101525.10221C-100000@elka-gtw.ee.itb.ac.id>
Rendered body type: text/plain

Hello,
 During last 4 months, I use EVM as a controller for giving a motor
stepper driver a clock.
First, I send through SCI from PC to EVM 4800 baud, because EVM is in 4
Mhz clock.
EVM accept every byte interruptly. PC send 16 byte to EVM.
Second, The EVM doing interrupt for every Timer Counter Data.

For example: I send 200 1 100 0 255
Means: Make 200 clock to Port B for every 255 timer down counter data.

That's all
Stephanus

16. Re: [DSP:554] COHERENT BPSK SOFTWARE

From: "Paulus" <paulstra@xs4all.nl>
Date: Wed, 30 Jul 1997 22:16:47 +0200
To: <dsp@tapr.org>

Message-ID: <199707302058.WAA19441@smtp1.xs4all.nl>
Rendered body type: text/plain

Hello Johan,

That is really fine to be able to use the evm for this coherent bpsk (and
perhaps CCW.)
The 4 mhz xtal: is that an special one ?
I will wait for the further announcements.

Cheerio de Paul, pa0ocd

17. EVM56K for sale

From: Kory Hamzeh <kory@avatar.com>
Date: Wed, 30 Jul 1997 14:33:51 -0700 (PDT)
To: dsp@tapr.org, hfsig@tapr.org
Message-ID: <Pine.BSI.3.91.970730143301.21368A-100000@avatar.avatar.com>
Rendered body type: text/plain

I have an EVM56K here which is gathering dust. It includes all of the docs
and software. This was not through the TAPR purchase. I would like to get
$125 + shipping for it. It has been socketed for the flash chip and I'll
include the flash chip.

Thanks,
Kory
AC6RN

18. Re: [DSP:563] Re: COHERENT BPSK SOFTWARE

From: forrerj@peak.org (Johan Forrer)
Date: Wed, 30 Jul 1997 16:15:29 -0800
To: dsp@tapr.org
Message-ID: <199707302314.QAA15382@peak.org>
Rendered body type: text/plain

Hello Paul,

Not all EVMs have a resonator - check if you have a metal can marked "4.0000
MHz." If you have such a crystal can, not to worry - it is good enough. In
my case I have a resonator on one of my EVMs that just was too far off. It
was simple matter to cut the tracks to the resonator on the bottom of the
board, and soldered-tacked a surplus 4.000 MHz computer crystal in place on
the bottom of the PCB. The crystal is nothing special - comes from my spare
parts box.

Oh yes, the software will work CCW if you use an older version of COHERENT
that included CCW. I now have regular BPSK QSO's the EVM and COHERENT - it's
really a lot of fun and truly amazing when one put it in the highest
error-correcting mode and print a signal that is otherwise unprintable. We
often do transcontinental QSOs now with only 20W and a short vertical on 40
meters.

Peter Lumb, G3IRM, is anxiously looking for someone to QSO. Perhaps the two
of you arrange something?

73,

--Johan

>Hello Johan,
>
>That is really fine to be able to use the evm for this coherent bpsk (and
>perhaps CCW.)
>The 4 mhz xtal: is that an special one ?
>I will wait for the further announcements.
>
>Cheerio de Paul, pa0ocd
>
>

19. Re: [DSP:565] Re: COHERENT BPSK SOFTWARE

From: kjh@goober.shoreline-studios.com (Ken Harris)
Date: Wed, 30 Jul 1997 23:23:45 -0700
To: dsp@tapr.org
Message-ID: <199707310623.XAA08586@goober.shoreline-studios.com>
Rendered body type: text/plain

> From dsp@tapr.org Wed Jul 30 16:57:07 1997
>
> Not all EVMs have a resonator - check if you have a metal can marked "4.0000
> MHz." If you have such a crystal can, not to worry - it is good enough.

        My EVM (rev 2.2, sn 10595) has a blue blob. Is this a resonator?

Ken J. Harris   voice: 415/969-7896 x 15   fax: 415/969-7864
mailto:kjh@shoreline-studios.com   http://www.shoreline-studios.com
snail mail: 1804 N. Shoreline Blvd, Ste 240, Mountain View, CA 94043
ICBM: 37 25.10' N, 122 04.67' W

20. Re: [DSP:566] Re: COHERENT BPSK SOFTWARE

From: Dvorak Viktor <dvorakv@beba.cesnet.cz>
Date: Wed, 30 Jul 1997 10:53:08 -0700
To: dsp@tapr.org
Message-ID: <33DF7F84.F8F@mbox.cesnet.cz>
Rendered body type: text/plain

Ken Harris wrote:
>
> > From dsp@tapr.org Wed Jul 30 16:57:07 1997
> >
> > Not all EVMs have a resonator - check if you have a metal can marked "4.0000
> > MHz." If you have such a crystal can, not to worry - it is good enough.
>
>   My EVM (rev 2.2, sn 10595) has a blue blob. Is this a resonator?
>
> ---
> Ken J. Harris   voice: 415/969-7896 x 15   fax: 415/969-7864
> mailto:kjh@shoreline-studios.com   http://www.shoreline-studios.com
> snail mail: 1804 N. Shoreline Blvd, Ste 240, Mountain View, CA 94043
> ICBM: 37 25.10' N, 122 04.67' W

Dear Ken,

        Yes, the blue part is an ceramic resonator. Exchance it with
small 4.0000 Mhz quarz.

                                                Viktor
                                                dvorakv@mbox.cesnet.cz

21. TOR56.TXT and TOR56.ZIP uploaded to ftp.tapr.org

From: dbraun@ichips.intel.com
Date: Thu, 31 Jul 1997 03:59:25 -0700
To: aa5df@tapr.org, dsp@tapr.org
Cc: dbraun@ichips.intel.com
Message-ID: <199707311059.AA225866765@dtthp135.jf.intel.com>
Rendered body type: text/plain

Hello,

I have uploaded the files TOR56.TXT and TOR56.ZIP to ftp.tapr.org,
in tapr/SIG/dsp/upload. As soon as Tim is able to move them
to a readable area (presumably tapr/SIG/dsp/recent_uploads),
you can get them.

TOR56.ZIP is a set of programs (and source code) to let you
use your EVM and PC to work AMTOR and PACTOR. One nice feature
is that the "normal" EVM 2-line serial interface is used for
PC-EVM communication, so no rewiring is needed.

Be warned, however, that this is a alpha-quality release.
The biggest problem is that you cannot make a PACTOR connection,
you can only monitor PACTOR QSOs. Also, the documentation
is rather out-of-date.

Doug
N1OWU

22. Re: [DSP:565] Re: COHERENT BPSK SOFTWARE

From: dbraun@ichips.intel.com
Date: Thu, 31 Jul 1997 13:44:20 +0300
To: dsp@tapr.org
Message-ID: <199707311104.AA226697054@dtthp135.jf.intel.com>
Rendered body type: text/plain

I got the COHERENT stuff and started to look at it, but I
am confused about one thing: What is the real difference
between coherent and regular PSK? Actually, "non-coherent PSK"
seems like an oxymoron...

Doug
N1OWU

23. Re: [DSP:566] Re: COHERENT BPSK SOFTWARE

From: Lyle Johnson <lylej@azstarnet.com>
Date: Thu, 31 Jul 1997 06:46:04 -0700
To: dsp@tapr.org
Message-ID: <3.0.32.19970731064559.006ffb38@pop.azstarnet.com>
Rendered body type: text/plain

At 01:25 AM 7/31/97 -0500, you wrote:
>> From dsp@tapr.org Wed Jul 30 16:57:07 1997
>>
>> Not all EVMs have a resonator - check if you have a metal can marked
"4.0000
>> MHz." If you have such a crystal can, not to worry - it is good enough.
>
>   My EVM (rev 2.2, sn 10595) has a blue blob. Is this a resonator?
>
Yes

24. Re: [DSP:568] TOR56.TXT and TOR56.ZIP uploaded to ftp.tapr.org

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Thu, 31 Jul 97 09:30:55 CDT
To: dsp@tapr.org
Message-ID: <9707311430.AA24553@aa5df.sps.mot.com>
Rendered body type: text/plain

>
> I have uploaded the files TOR56.TXT and TOR56.ZIP to ftp.tapr.org,
> in tapr/SIG/dsp/upload. As soon as Tim is able to move them
> to a readable area (presumably tapr/SIG/dsp/recent_uploads),
> you can get them.

Done

73
Tim

25. Re: [DSP:569] Re: COHERENT BPSK SOFTWARE

From: forrerj@peak.org (Johan Forrer)
Date: Thu, 31 Jul 1997 08:49:04 -0800
To: dsp@tapr.org
Message-ID: <199707311548.IAA26683@peak.org>
Rendered body type: text/plain

Hello Doug,

>
>I got the COHERENT stuff and started to look at it, but I
>am confused about one thing: What is the real difference
>between coherent and regular PSK? Actually, "non-coherent PSK"
>seems like an oxymoron...

Right - it is a matter of someone's definition for "coherent" demodulation.
This is not quite what we find in text books though. I have pointed this
out, but I guess people feel comfortable with their own interpretation.

For this particular group of experimentors, symbol times are very carefully
synched and tracked, very much like as if two CW stations has exactly found
the stop/start of each other's dits and dahs and faithfully follows that.
The signal phase then is matched by a searc for the closest possible match
in a set of 1/N. This is the reason that only integer waves of the carrier
tone can be matched in COHERENT.

The definition is extended a little further in that the character rate is
like for a synchronous system. Unlike the SP9VRC system where the formation
of characters is on an asynchronous basis, i.e., relies on stop/start bits,
COHERENT has a synchronization phase and once that is done, all information
regarding stop/start bits are disregarded; When there is no data in the
buffer to be sent, nulls are sent to keep everything in sync. When the

error-control modes gets activated, 8-bit ASCII characters become either 16 bit frames, or 27-bit frames, but the same synchronous principle applies.

The other interesting aspect is that square wave keying is applied, i.e., an infinite bandwidth signaling. On the demodulator side, a simple integrate and dump filter integrates over a square window. Most operators, however, do actually use some kind of filter on the output which of course results in non-optimal demodulation. My EVM implementation does apply filters on both input and output signals.

This note is not in any means intended as critisism - in fact I really enjoy participating in these experiments as there are at least some people doing innovative work, and it really works on extremely weak signals.

I would encourage anyone interested in weak signal work to try COHERENT - you will not be dissapointed!

73

--Johan

P.S. My EVM program has room for improvement too. If anyone has some time to experiment with building a decent multirate filter, please let me know. Otherwise the crude rate coonvertor appears to work extremely well, in fact, I suspect the real thing would be a cosmetic improvement.

26. Sound Cards

From: Jim Sanford <jsanfor@exis.net>
Date: Thu, 31 Jul 1997 18:43:17 -0400
To: dsp@tapr.org
Message-ID: <33E11505.2BD1@exis.net>
Rendered body type: text/plain

Ok, guys, finally plunged and upgraded ton Win95. My existing sound card, which has an Analog Devices DSP chip has only 16 bit drivers available for it. (Latest from OEM web site.) Since I like the PSATOOLS setup, etc., and don't really want to mess with Creative Lab's proprietary stuff, I seek a sound card with some Analog Devices chip set and 32bit drivers.

Any suggestions?

Thanks! & 73, Jim
wb4gcs@amsat.org

27. Re: [DSP:573] Sound Cards

From: forrerj@peak.org (Johan Forrer)
Date: Thu, 31 Jul 1997 21:10:39 -0800
To: dsp@tapr.org
Message-ID: <199708010409.VAA20868@peak.org>
Rendered body type: text/plain

Jim,

>Ok, guys, finally plunged and upgraded ton Win95. My existing sound
>card, which has an Analog Devices DSP chip has only 16 bit drivers
>available for it. (Latest from OEM web site.) Since I like the
>PSATOOLS setup, etc., and don't really want to mess with Creative Lab's
>proprietary stuff, I seek a sound card with some Analog Devices chip set
>and 32bit drivers.
>
>Any suggestions?
>
>Thanks! & 73, Jim
>wb4gcs@amsat.org
>
>

A tough one if you're looking for 32-bit drivers for that card. I dont know of any. The folks at Echo Speech knows that card best, so perhaps they have something on their web site (www.echospeech.com) - maybe that is the OEM drivers you mentioned.

I would suggest that you invest in a plug-n-play WSS-compatible soundcard ($30) that co-exsists with your DSP sound card. This way you can have the best of both worlds; let Win95 "own" the sound system card, and you can work your way around using the DSP on the other sound card. I have done that in the past. You may be pleasantly surprised to learn what advantages these

cheap cards have over CL cards; full duplex (record and playback
simultaneously), and their sound is simply better (fewer gimmicks in the
audio chain.)

--Johan

August 1997

Original source file: dsp.9708
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9708

1. EVM Radio Interface PCB

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 01 Aug 1997 08:38:27 -0800
To: DSP@tapr.org
Message-ID: <199708011537.IAA10372@peak.org>
Rendered body type: text/plain

Hi folks,

Now that the EVM has been around for a while - anyone interested in
a little entrepenurial activities? We are in need for a reasonably-priced
PCB and parts kit for an EVM radio interface.

This seems to be the biggest problem facing many espiring EVM users. A PCB
and parts kit will help get some folks on the air at least.

If anyone is interested, let me know where I can help.

73's
--Johan

---

2. Re: [DSP:574] Re: Sound Cards

From: Jim Sanford <jsanfor@exis.net>
Date: Fri, 01 Aug 1997 18:49:01 -0400
To: dsp@tapr.org
Message-ID: <33E267DD.3ADA@exis.net>
Rendered body type: text/plain

Johan Forrer wrote:
>
> Jim,
>
> >Ok, guys, finally plunged and upgraded ton Win95. My existing sound
> >card, which has an Analog Devices DSP chip has only 16 bit drivers
> >available for it. (Latest from OEM web site.) Since I like the
> >PSATOOLS setup, etc., and don't really want to mess with Creative Lab's
> >proprietary stuff, I seek a sound card with some Analog Devices chip set
> >and 32bit drivers.
> >
> >Any suggestions?
> >
> >Thanks! & 73, Jim
> >wb4gcs@amsat.org
> >
> >
>
> A tough one if you're looking for 32-bit drivers for that card. I dont know
> of any. The folks at Echo Speech knows that card best, so perhaps they have
> something on their web site (www.echospeech.com) - maybe that is the OEM
> drivers you mentioned.
>
> I would suggest that you invest in a plug-n-play WSS-compatible soundcard
> ($30) that co-exsists with your DSP sound card. This way you can have the
> best of both worlds; let Win95 "own" the sound system card, and you can work
> your way around using the DSP on the other sound card. I have done that in
> the past. You may be pleasantly surprised to learn what advantages these
> cheap cards have over CL cards; full duplex (record and playback
> simultaneously), and their sound is simply better (fewer gimmicks in the
> audio chain.)
>
> --Johan
>
>
>
Johan:
Thanks for the suggestion. Do you think EchoSpeech made these things?
Mine is a WINWAVE from Sigma Designs. They said their OEM quit
making/supporting these things before win95 emerged.

Which $30 cards do you mean? And what's a CL card?????

Thanks & 73, JIm
wb4gcs@amsat.org

3. Re: [DSP:576] Re: Sound Cards

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 01 Aug 1997 17:52:41 -0800
To: dsp@tapr.org
Message-ID: <199708020051.RAA00194@peak.org>
Rendered body type: text/plain

Jim,

>
>Johan:
>Thanks for the suggestion. Do you think EchoSpeech made these things?
>Mine is a WINWAVE from Sigma Designs. They said their OEM quit
>making/supporting these things before win95 emerged.
>
>Which $30 cards do you mean? And what's a CL card?????
>
>Thanks & 73, JIm
>wb4gcs@amsat.org
>
>
>

I think we are getting into deep water, so with caution I say:

1) If your DSP soundcard with the ADSP2115 has the PSA chipset on it, it has
the Echo Speech ASIC. A bunch of manufacturers OEM'ed that design, called
the Personal Sound Architecture (PSA).

2) CL == Creative Labs Soundblaster.

3) If you look around Computer Shopper or your local computer shops, you
will see some low priced (around $30) cards that usually say "Full Duplex".
Mine has a brand name "Magic Sound 16, 16-bit PnP Audio Card" manufactured
by I/O Magic (made in China). Closer inspection will reveal either a AD1848,
or AD1845, or CS4248, CODEC.

Just a bit of sane advice: If these part numbers does not ring a bell, or
you are not very comfortable making more than one sound card resident in
Win95 - better to leave this alone as you will have endless troubles.

73's

--Johan

4. Re: [DSP:577] Re: Sound Cards

From: Jim Sanford <jsanfor@exis.net>
Date: Fri, 01 Aug 1997 21:58:14 -0400
To: dsp@tapr.org
Message-ID: <33E29436.4EA8@exis.net>
Rendered body type: text/plain

Johan Forrer wrote:
>
> Jim,
>
> >
> >Johan:
> >Thanks for the suggestion. Do you think EchoSpeech made these things?
> >Mine is a WINWAVE from Sigma Designs. They said their OEM quit
> >making/supporting these things before win95 emerged.
> >
> >Which $30 cards do you mean? And what's a CL card?????
> >
> >Thanks & 73, JIm
> >wb4gcs@amsat.org
> >
> >
> >
>
> I think we are getting into deep water, so with caution I say:
>
> 1) If your DSP soundcard with the ADSP2115 has the PSA chipset on it, it has
> the Echo Speech ASIC. A bunch of manufacturers OEM'ed that design, called
> the Personal Sound Architecture (PSA).
>
> 2) CL == Creative Labs Soundblaster.
>

> 3) If you look around Computer Shopper or your local computer shops, you
> will see some low priced (around $30) cards that usually say "Full Duplex".
> Mine has a brand name "Magic Sound 16, 16-bit PnP Audio Card" manufactured
> by I/O Magic (made in China). Closer inspection will reveal either a AD1848,
> or AD1845, or CS4248, CODEC.
>
> Just a bit of sane advice: If these part numbers does not ring a bell, or
> you are not very comfortable making more than one sound card resident in
> Win95 - better to leave this alone as you will have endless troubles.
>
> 73's
>
> --Johan
Johan:
Familiar with the part numbers. Will look for the cards.

Thanks & 73, JIm

5. Re: [DSP:577] Re: Sound Cards

From: Bdale Garbee <bdale@gag.com>
Date: Fri, 1 Aug 1997 21:48:34 -0600
To: dsp@tapr.org
Message-ID: <199708020348.VAA04184@chunks.gag.com>
Rendered body type: text/plain

In article <199708020051.RAA00194@peak.org> you wrote:

: 3) If you look around Computer Shopper or your local computer shops, you
: will see some low priced (around $30) cards that usually say "Full Duplex".

FYI... go look at www.mssi.com. I quit getting Computer Shopper because my
rural postmistress kept leaving me these nasty little cards about buying a
bigger mailbox... :-)

I've bought various things from MSSI recently and am quite happy with the
results. The two most amazing deals are the $22 sound card and the $75
video card. I've got one of the video cards in my Linux box doing
1280x1024x24bpp with XFree86 3.3... I have no interest in them other than as
a very satisfied customer.

Back to writing code for P3D Rudak... (no, not for the DSP's, at least not
yet!)

73 - Bdale, N3EUA

6. Documentation

From: Vittorio Moretti <orso@comune.modena.it>
Date: Sat, 2 Aug 1997 19:38:30 +-200
To: "'dsp@tapr.org'" <dsp@tapr.org>
Message-ID: <01BC9F7B.AC649D00@usr6.sassuolo.orion.it>
Rendered body type: text/plain

Hi!
Where can I find documentation about ASM56000.exe and G56K.exe ?
Thank's
IK4IRO Vittorio

7. RE: COHERENT BPSK SOFTWARE

From: "Louis Cobet" <Louis_Cobet@msn.com>
Date: Mon, 4 Aug 97 05:49:33 UT
To: dsp@tapr.org
Message-ID: <UPMAIL14.19970804055000375@msn.com>
Rendered body type: text/plain

I am interested in the BPSK project. However, I need some help.

I have a ceramic resonator on my EVM56002. I would prefer to
replace the resonator with a crystal at 4.0 Mhz.

Is a specific type of crystal recommended?

What circuits are being used to interface transceivers and the EVM?
Has anyone produced circuit boards for an interface?

I would appreciate any assistance on the above items.

Thank You, Louis Cobet, K6MDH
Louis_Cobet@msn.com

8. Re: [DSP:581] RE: COHERENT BPSK SOFTWARE

From: forrerj@peak.org (Johan Forrer)
Date: Mon, 04 Aug 1997 08:35:57 -0800
To: dsp@tapr.org
Message-ID: <199708041534.IAA02610@peak.org>
Rendered body type: text/plain

Hi,

>I am interested in the BPSK project. However, I need some help.
>

Glad to see the interest - the group's efforts are growing: Sunday we had a group of six on 14081 trying to work G3IRM. Unfortunately G3IRM could not hear stateside stastions, but several printed him over here. Afterwards we had a round-table QSO.

>I have a ceramic resonator on my EVM56002. I would prefer to
>replace the resonator with a crystal at 4.0 Mhz.
>

First: I would recommend that you try use the board as is - if you go through the calibration checks and find that the 4 MHz signal is just too far off, then and, only then would I recommend doing the 4 MHz crystal swap.

>Is a specific type of crystal recommended?
>

4.0000 MHz is a common computer crystal that you will find at most mail order shops, like WWW.JDR.COM, or www.digikey.com - both will take orders over the Internet. I did not use any special crystal, however, you can probably get a special quality crystal from JAN, HiQ, California Crystal, or some of the other crystal manufacturing companies.

The way that I accomodated the new crystal without doing serious damage to the board is as follows:
If you turn the board over, you will see two fine traces to the resonator. I cut those with an EXACTO knife (in a way that I can repair it again simply by bridging the cut with a solder blob.) Following these two traces, you find them ending in two vias (holes that route between the top and bottom). If you carefully scrape the paint off these (still on the bottom of the board) and tin them so that they are nice and bright, that becomes the point where you can solder-tack the leads of a crystal on the bottom of the board. I then taped the new crystal in place with a piece of double-sided 3M tape, trimmed the leads to length, and finally solder-tacked it to the vias. Be careful not to overheat the crystal or the board as you may cause damage.

Doing it this way, you can, at any time, restore the board to its original state without risk.

>What circuits are being used to interface transceivers and the EVM?
>Has anyone produced circuit boards for an interface?
>

I heard back from Lyle Johnson and Steve Bible about a radio interface that they are working on. It looks very professional and fits in the same-sized box as the DSP-93. Hopefully arrangements will be finalized soon so that it will be available through TAPR in the near future.

If you simply cannot wait, check out the schematics that are available on the TAPR web page (WWW.TAPR.ORG) (select the DSP special interest group and look at the section on 56002 experimentation - there are several schematics that you can use.)

>I would appreciate any assistance on the above items.

Let us know if you need further assistance.

--Johan, KC7WW

9. Re: [DSP:582] RE: COHERENT BPSK SOFTWARE

From: "Ken Harris" <kjh@goober.shoreline-studios.com>
Date: Mon, 4 Aug 1997 15:49:42 -0700
To: dsp@tapr.org
Message-ID: <9708041549.ZM17688@goober.shoreline-studios.com>
Rendered body type: text/plain

On Aug 4, 10:35am, Johan Forrer wrote:
>
> >Is a specific type of crystal recommended?

I got one at Halted (off Shoreline, near 101 in Mountain View)
for 69 cents.
>
> The way that I accomodated the new crystal without doing serious damage to
> the board is as follows:

I just cut the resonator out and unsoldered the leads and
used a solder wick to clean the pads and then soldered the xtal in.
Plug compatible!

> Doing it this way, you can, at any time, restore the board to its original
> state without risk.

Hope I don't need to do that....

10. Documentation

From: bsmeds@esoc.esa.de
Date: Tue, 5 Aug 1997 12:48:27 +0200
To: dsp@tapr.org
Message-ID: <C12564EA.003ABBD1.00@esocmail1.esoc.esa.de>
Rendered body type: text/plain

>Hi!
>Where can I find documentation about ASM56000.exe and G56K.exe ?
>Thank's
>IK4IRO Vittorio

The documentation for the ASM56000.exe is actually part of evm28.exe
that can be downloaded from
ftp://ftp.tapr.org/tapr/SIG/dsp/dsp56002/evm56k/motorola/
Run evm28.exe and you get asm_man.zip.
Unzip asm_man.zip and the documentation files are generated.

I do not know what G56K.exe is.

Regards
Boris DJ0EX SM0GJ

11. Costas Loop Demodulator

From: Charles Brain <chbrain@dircon.co.uk>
Date: Thu, 07 Aug 1997 08:13:50 +0100
To: "dsp@tapr.org" <dsp@tapr.org>
Message-ID: <33E975AD.4774141E@dircon.co.uk>
Rendered body type: text/plain

Hi,

Does anyone have/know of an example implementation of
a Costas Loop Demodulator for the EVM56K. I am mainly
interested in the NCO and loop coefficients. I am looking
at implementing a 1bit/s demodulator for some LF
experiments.

- Charles G4GUO

12. TAPR Server to be down 8/9/97

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Fri, 8 Aug 1997 22:24:44 -0500
To: "TAPR-BB list   mailing"<tapr-bb@tapr.org>,
"TAPR   APRS SIG"<aprssig@tapr.org>,
"HF SIG list   mailing"<hfsig@tapr.org>,
"NETSIG list   mailing"<netsig@tapr.org>,
"BBS SIG list   mailing"<bbssig@tapr.org>,
" Spread Spectrum "<ss@tapr.org>, " TAPR SYS "<tapr-sys@tapr.org>,

" tapr-tnc "<tapr-tnc@tapr.org>, aprs-fl@tapr.org,
" tacgps "<tacgps@tapr.org>,
TAPR Regional Freq <regional_freq@tapr.org>,
" TAPR/AMSAT DSP "<dsp@tapr.org>, " DSP-93 Build "<dsp-93@tapr.org>,
" TPRS Board "<tprs-board@tapr.org>
Message-ID: <v03020900b01191cb3c5c@[208.134.134.40]>
Rendered body type: text/plain

I just received a call informing us that the building location where the TAPR.ORG server is located will be without power tomorrow for most of the day.

We will be shutting down the server between 7am and 8am and don't expect that it will be available until late Saturday evening when power is restored.

Cheers - Greg, WD5IVD

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd

"Before you become too entranced with gorgeous gadgets
and mesmerizing video displays, let me remind you that
information is not knowledge, knowledge is not wisdom,
and wisdom is not foresight. Each grows out of the other
and we need them all." -Arthur C. Clarke

13. Progress on HF BPSK

From: forrerj@peak.org (Johan Forrer)
Date: Mon, 11 Aug 1997 10:36:04 -0800
To: HFSIG@tapr.org, DSP@tapr.org
Message-ID: <199708111736.KAA19433@peak.org>
Rendered body type: text/plain

Hi folks,

Thought that I would let you know what's been happening with HF BPSK experimentation.

1) Dave, AA1A and Peter, G3IRM, made a transatlantic contact using BPSK (40 baud, synchronous ASCII.)
Congratulations!

2) Bill, WB6RIJ, is now also up and running with an EVM. We have had several QSO's on 30m and 40m under good and also very poor conditions. Next we would like to experiment with the European PSK31 system, also Pawel's new MT63ASC (63 tone BPSK) modem. I'll let you know how that works out.

3) After receiving reports about excessive spectrum usage, the COHERENT BPSK group has actively been working on refining modulation techniques to reduce bandwidth to a minimum.

The basic problem apparently arise from the use of square symbol keying, in addition to inadequate waveform filtering. The present solution that is being worked on is based on using a PC sound card to generate shaped symbols. Tests have shown a great deal of improvement and eventually should become quite acceptible to others on the band segment - that is once everyone does what is needed to clean up their emissions.

Folks that use the EVM solution has several options to choose from: narrow FIR bandpass filtering or shaped symbols. Either will work, however, there is no free lunch here - several side effects to contend with: a) the demodulator needs to use a matched filter, b) amplitude variations are becoming a factor - as a matter of fact, one cannot have both narrow bandwidth and constant amplitude simultaneously, c) linearity in the amplifier chain becomes a factor, d) frequency stability becomes even more of an issue.

It is evident that weak signal performance deteriorates rather quickly when these factors are overlooked.

4) I will shortly be updating the BPSK interface code with COHEVM12.ZIP. This has several improvements over the older version. I'll make the announcement when its ready.

5) The TAPR EVM radio interface kit is making good progress. Hopefully this

will enable those that have been putting off the construction of their own interface to become active.

For those that are interested, most BPSK activity is presently on 7081 (carrier) in the evenings. Presently there is some activity on 14081 (carrier) at 1600Z to work on transatlantic contacts. There are stations around the North America; Quebec, Massacusetts, Colorado, Oregon, and California.

73

--Johan

14. beta dsp-93 & new eproms

From: Bill Beech <bbeech@ods.com>
Date: Tue, 12 Aug 1997 07:51:13 -0500
To: dsp@tapr.org
Message-ID: <33F05C41.900CA31F@ods.com>
Rendered body type: text/plain

I have a beta dsp-93 which I tried to upgrade a couple of months ago. I got the latest eprom images and burned them into eprom, then tried the eproms in my dsp-93. No go.
I got some garbage from the serial port each time I reset the dsp-93, but could not decode it at any common baud-rate. When I return to the X.09 version of the eproms, the dsp-93 operates properly on the serial port.

Is there a change to the GAL which I have missed ?

I completed a move to the dallas area, so have just "found" the dsp-93 again. Would like to make it the main modem for my satellite work.

73
Bill, NJ7P

15. Re: [DSP:588] beta dsp-93 & new eproms

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 12 Aug 1997 08:05:23 -0800
To: dsp@tapr.org
Message-ID: <199708121505.IAA19074@peak.org>
Rendered body type: text/plain

Bill,

I guess others will be able to help you with your question on the DSP-93 list. Just sign up there and ask for help. Assuming that the DSP-93 list is still functional?

Good luck!

--Johan

>I have a beta dsp-93 which I tried to upgrade a couple of months ago. I
>got the latest eprom images and burned them into eprom, then tried the
>eproms in my dsp-93. No go.
>I got some garbage from the serial port each time I reset the dsp-93,
>but could not decode it at any common baud-rate. When I return to the
>X.09 version of the eproms, the dsp-93 operates properly on the serial
>port.
>
>Is there a change to the GAL which I have missed ?
>
>I completed a move to the dallas area, so have just "found" the dsp-93
>again. Would like to make it the main modem for my satellite work.
>
>73
>Bill, NJ7P
>
>

16. Re: [DSP:574] Re: Sound Cards

From: "Ken Harris" <kjh@goober.shoreline-studios.com>
Date: Tue, 12 Aug 1997 10:00:18 -0700
To: dsp@tapr.org
Message-ID: <9708121000.ZM1045@goober.shoreline-studios.com>

Rendered body type: text/plain

On Jul 31, 11:12pm, Johan Forrer wrote:
> Subject: [DSP:574] Re: Sound Cards
>
> I would suggest that you invest in a plug-n-play WSS-compatible soundcard
> ($30) that co-exsists with your DSP sound card. This way you can have the
> best of both worlds; let Win95 "own" the sound system card, and you can work
> your way around using the DSP on the other sound card. I have done that in
> the past. You may be pleasantly surprised to learn what advantages these
> cheap cards have over CL cards; full duplex (record and playback
> simultaneously), and their sound is simply better (fewer gimmicks in the
> audio chain.)

>-- End of excerpt from Johan Forrer

        What HAM software exists for WSS sound cards?

        Where can I get a SDK?

17. Re: [DSP:590] Re: Sound Cards

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 12 Aug 1997 13:34:22 -0800
To: dsp@tapr.org
Message-ID: <199708122034.NAA05466@peak.org>
Rendered body type: text/plain

>On Jul 31, 11:12pm, Johan Forrer wrote:
>> Subject: [DSP:574] Re: Sound Cards
>>
>> I would suggest that you invest in a plug-n-play WSS-compatible soundcard
>> ($30) that co-exsists with your DSP sound card. This way you can have the
>> best of both worlds; let Win95 "own" the sound system card, and you can work
>> your way around using the DSP on the other sound card. I have done that in
>> the past. You may be pleasantly surprised to learn what advantages these
>> cheap cards have over CL cards; full duplex (record and playback
>> simultaneously), and their sound is simply better (fewer gimmicks in the
>> audio chain.)
>
>>-- End of excerpt from Johan Forrer
>
>   What HAM software exists for WSS sound cards?
>

Anything that expects Windows Sound system support. Since a large number of
these WSS-type sound cards also include SoundBlaster (R) emulation, you may
try your luck there too. There are no guarentees though - depends on the card.

>   Where can I get a SDK?
>

Your'e probably on your own as far as an SDK is concerned. There is the
simple FSF library that is available on Simtel, called SBF3.ZIP. That is
pretty simplistic and everything does not quite work - otherwise you may
use the Windows API dealing with sound, including Direct Sound etc.

Sorry if this is a little off topic for DSP - I would suggest that probably
your best bet is to ask this kind of question on the newgroups dealing with
sound cards - probably get some pretty good solutions from folks that knows
how to do it and where to find it.

If you find out how to do it and come up with some clever DSP application,
be sure to share that with us.

My two-cents.

--Johan

18. ?any 56002EVM ham radio software archives?

From: "Thomas M. Alldread" <tmaldred@mail.island.net>
Date: Wed, 13 Aug 1997 06:55:12 -0700
To: <dsp@tapr.org>
Message-ID: <199708131355.GAA31059@norm.island.net>
Rendered body type: text/plain

Greetings:

        I have been thinking about dedicating some time to my EVM and wonder if

there is some amateur radio related software available on the Net that
might provide a boost start or if there is a WWW site that would bring me
up to date with ham radio related 56002EVM accomplishments?

73
Tom, VE7TMA

19. Re: [DSP:592] ?any 56002EVM ham radio software archives?

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Wed, 13 Aug 97 09:44:46 CDT
To: dsp@tapr.org
Message-ID: <9708131444.AA00377@aa5df.sps.mot.com>
Rendered body type: text/plain

> might provide a boost start or if there is a WWW site that would bring me
> up to date with ham radio related 56002EVM accomplishments?

Hi Tom,

Check out the information and links at:

http://www.tapr.org/dsp/evm56k/index.html

73rds,
Tim

20. Re: [DSP:592] ?any 56002EVM ham radio software archives?

From: Lyle Johnson <lylej@azstarnet.com>
Date: Wed, 13 Aug 1997 07:54:21 -0700
To: dsp@tapr.org
Message-ID: <3.0.3.32.19970813075421.0072e290@pop.azstarnet.com>
Rendered body type: text/plain

At 08:56 AM 8/13/97 -0500, you wrote:
>
>Greetings:
>
>   I have been thinking about dedicating some time to my EVM and wonder if
>there is some amateur radio related software available on the Net that
>might provide a boost start or if there is a WWW site that would bring me
>up to date with ham radio related 56002EVM accomplishments?
>
>73
>Tom, VE7TMA
>
Tom,

Go to the TAPR web page and follow DSP...

CHeers,

Lyle

21. Re: [DSP:592] ?any 56002EVM ham radio software archives?

From: forrerj@peak.org (Johan Forrer)
Date: Wed, 13 Aug 1997 09:28:01 -0800
To: dsp@tapr.org
Message-ID: <199708131628.JAA22200@peak.org>
Rendered body type: text/plain

Tom,

A good place to start looking is on TAPR's web page: www.tapr.org
The section on DSP will lead you to the EVM-related work and archives.

Good luck!

--Johan, KC7WW

>
>Greetings:
>
>   I have been thinking about dedicating some time to my EVM and wonder if
>there is some amateur radio related software available on the Net that

>might provide a boost start or if there is a WWW site that would bring me
>up to date with ham radio related 56002EVM accomplishments?
>
>73
>Tom, VE7TMA
>
>

22. New AD 21061 EVM

From: RLANIER@mailb.harris.com (RLANIER)
Date: Wed, 13 Aug 1997 16:13:12 -0400
To: dsp@tapr.org
Message-ID: <3f215540@mailb.harris.com>
Rendered body type: text/plain

Does anyone plan on using the new Analog Devices 21061 EVM? For $189
(I think that's right), you get a C compiler, DSP board, CD-ROM with
software and manual. If anyone is interested in experimenting with
this part, let me know. We can correspond off line if you wish.

Tony KE4ATO

23. Re: [DSP:596] New AD 21061 EVM

From: forrerj@peak.org (Johan Forrer)
Date: Wed, 13 Aug 1997 15:29:16 -0800
To: dsp@tapr.org
Message-ID: <199708132229.PAA20520@peak.org>
Rendered body type: text/plain

Tony,

>   Does anyone plan on using the new Analog Devices 21061 EVM? For $189
>   (I think that's right), you get a C compiler, DSP board, CD-ROM with
>   software and manual. If anyone is interested in experimenting with
>   this part, let me know. We can correspond off line if you wish.
>
>   Tony KE4ATO
>
>

I received mine some weeks ago, and waded through a lot of documentation since.
Its a somewhat complex part to master and program, and appears to be
designed for
use with C in mind. Though I am not quite sure yet how for one would get
with that,
i.e. how efficient the code generator is.

Just be warned that this is way more complex than for example, the Motorola
EVMs,
and that the software tools that are supplied with the kit is a "restricted"
version.
Also is not the full set of utilities either. I also have found that not all
their
canned examples work without some adjustments of paths, environment
variables or code.
The software and manuals all comes on one CDROM which is awfully slow to
access - all
.PDF's with very heavy-duty hyperlinked text. It becomes a pain to page
through any
of the documentation, and that is a reasonably good worstation. I spent a
couple of
evenings and printed what I needed most and filled up two large binders.

As an exersize, I remade the EPROM from scratch. You might be surprized at
how big the
code image turned out to be and there is not that much in there. It needs a
27C010!

One thing that is a serious disadvantage, in my opinion, after playing with
the EVMs,
is that there is no hardware debugger that runs on the DSP itself - you are
expected
to use the simulator, which is OK if you are starting out, but I cannot see
how that will
work once you are into serious development. Otherwise you need to make a
futher investment
in JTAG hardware fromt AD for this purpose.

Besides these critisisms - the ADSP-2106x is very potent with plenty of

possibilies, but
aimed at the high-end DSP applications, possibly multi-processor arrays,
grids, or other
kinds of esoteric designs. Its in a class of DSPs much like the TI 320C40, or
transputer-like architecures.

I'd be interested to hear whether there are others that looked at the new
EZ-KIT.

My two cents worth - trust this is of interest,

73

--Johan

24. Re: New AD 21061 EVM

From: mdf@angoss.com (Matthew Francey)
Date: Wed, 13 Aug 1997 23:54:21 GMT
To: dsp@tapr.org
Message-ID: <199708132354.XAA13957@hydrogen>
Rendered body type: text/plain

forrerj@peak.org (Johan Forrer):

>One thing that is a serious disadvantage, in my opinion, after playing
>with the EVMs, is that there is no hardware debugger that runs on the DSP
>itself - you are expected to use the simulator, which is OK if you are
>starting out, but I cannot see how that will work once you are into
>serious development.

Have you gotten the EVM56002 to actually do the hardware debug thing?
There are some nasty problems with the 68hc705 OnCE/RESET control
program that make using the cool OnCE to its full extent *very* difficult.
You can get things into and out of memory fine, start and stop the DSP works,
but there is no response from the '705 when a break-point is triggered,
or during single-instruction tracing via the OnCE. You can't even ask the
'705 about the debug status of the DSP ...

If someone has a solution to this problem, please tell!

25. Re: [DSP:598] Re: New AD 21061 EVM

From: forrerj@peak.org (Johan Forrer)
Date: Wed, 13 Aug 1997 18:32:26 -0800
To: dsp@tapr.org
Message-ID: <199708140132.SAA16557@peak.org>
Rendered body type: text/plain

Matthew,

>forrerj@peak.org (Johan Forrer):
>
>>One thing that is a serious disadvantage, in my opinion, after playing
>>with the EVMs, is that there is no hardware debugger that runs on the DSP
>>itself - you are expected to use the simulator, which is OK if you are
>>starting out, but I cannot see how that will work once you are into
>>serious development.
>
>Have you gotten the EVM56002 to actually do the hardware debug thing?
>There are some nasty problems with the 68hc705 OnCE/RESET control
>program that make using the cool OnCE to its full extent *very* difficult.
>You can get things into and out of memory fine, start and stop the DSP works,
>but there is no response from the '705 when a break-point is triggered,
>or during single-instruction tracing via the OnCE. You can't even ask the
>'705 about the debug status of the DSP ...
>

I use breakpoints all the time without any known problems on the EVM. The PC
plugin version from Domain that I also use has a similar debugger that I
also use without any problems, at least not debugger problems. But of coarse
that does not mean that we have explored all the kinds of breakpoints either!

Perhaps you can give us an example and we can see if we can duplicate the
problem.
Just a simple 10 line program will be sufficient to see whats up.

Thanks!

--Johan

26. Re: [DSP:598] Re: New AD 21061 EVM

From: Tim Baggett <tim@dsp.sps.mot.com>
Date: Wed, 13 Aug 1997 21:11:47 -0500 (CDT)
To: dsp@tapr.org
Message-ID: <Pine.SUN.3.91.970813210503.1929B-100000@aa5df>
Rendered body type: text/plain

Okay! You've waken the Moto guys now! Let me see if I can help...

On Wed, 13 Aug 1997, Matthew Francey wrote:

> Have you gotten the EVM56002 to actually do the hardware debug thing?
> There are some nasty problems with the 68hc705 OnCE/RESET control
> program that make using the cool OnCE to its full extent *very* difficult.

What such things? I have been able to do nearly everything with the
Domain Debugger and RS232/OnCE controller that I can with the JTAG/OnCE
interface provided as an Application Development System (ADS) with
command converter and host interface card. It only operated MUCH slower
(19200 over the serial port).

> You can get things into and out of memory fine, start and stop the DSP works,
> but there is no response from the '705 when a break-point is triggered,

Can you elaborate a bit for me? I have successfuly set breakpoints and
executed full speed ahead until the breakpoint halted the core and
returned control to the debugger.

> or during single-instruction tracing via the OnCE. You can't even ask the

Same thing here. The single stepping feature is implemented in the OnCE
controller hardware on the 56002 itself. You should be able to single step.

> '705 about the debug status of the DSP ...

The debugger should know if the DSP is running or stopped. If you want
actual low level status of the HC705, then you need to write your own
debug routines. The HC705 ROM code is provided with the EVM on the disk.
The source code documents all the functions that are used over the serial
link.

> If someone has a solution to this problem, please tell!

Let me know what problems you are having, and I'll try to help you out.
Email me privately if you wish.

73,
Tim, AA5DF

tim@dsp.sps.mot.com

---

27. unscribe please

From: chris <chris@newcomb.com>
Date: Thu, 14 Aug 97 07:42:15 -0400
To: dsp@tapr.org
Message-ID: 11421599506885@newcomb.com
Rendered body type: text/plain

[Empty message body]

---

28. Re: [DSP:597] Re: New AD 21061 EVM

From: RLANIER@mailb.harris.com (RLANIER)
Date: Thu, 14 Aug 1997 12:24:57 -0400
To: dsp@tapr.org
Message-ID: <3f331620@mailb.harris.com>
Rendered body type: text/plain

Hi Johan,

> The ADSP21061 EVM may be limited, but for the price ($179), it can't
> be beat. I would like to start using this part for some higher-level
> DSP algorithms (when I get to that point), so this looked like a good
> candidate.
>
> Besides, I have an affinity for Analog Devices DSPs anyway :)
>
> Tony   KE4ATO

_____ Reply Separator _____
Subject: [DSP:597] Re: New AD 21061 EVM
Author: dsp@tapr.org at smtp
Date: 8/13/97 5:57 PM

I received mine some weeks ago, and waded through a lot of documentation since.
Its a somewhat complex part to master and program, and appears to be
designed for
use with C in mind. Though I am not quite sure yet how for one would get
with that,
i.e. how efficient the code generator is.

Just be warned that this is way more complex than for example, the Motorola
EVMs,
and that the software tools that are supplied with the kit is a "restricted"
version.
Also is not the full set of utilities either. I also have found that not all
their
canned examples work without some adjustments of paths, environment
variables or code.
The software and manuals all comes on one CDROM which is awfully slow to
access - all
.PDF's with very heavy-duty hyperlinked text. It becomes a pain to page
through any
of the documentation, and that is a reasonably good worstation. I spent a
couple of
evenings and printed what I needed most and filled up two large binders.

As an exersize, I remade the EPROM from scratch. You might be surprized at
how big the
code image turned out to be and there is not that much in there. It needs a
27C010!

One thing that is a serious disadvantage, in my opinion, after playing with
the EVMs,
is that there is no hardware debugger that runs on the DSP itself - you are
expected
to use the simulator, which is OK if you are starting out, but I cannot see
how that will
work once you are into serious development. Otherwise you need to make a
futher investment
in JTAG hardware fromt AD for this purpose.

Besides these critisisms - the ADSP-2106x is very potent with plenty of
possibilies, but
aimed at the high-end DSP applications, possibly multi-processor arrays,
grids, or other
kinds of esoteric designs. Its in a class of DSPs much like the TI 320C40, or
transputer-like architecures.

I'd be interested to hear whether there are others that looked at the new
EZ-KIT.

My two cents worth - trust this is of interest,

73

--Johan

29. Re: [DSP:597] Re: New AD 21061 EVM

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Fri, 15 Aug 1997 10:55:38 +0200
To: dsp@tapr.org
Message-ID: <33F4198A.54E7@ife.ee.ethz.ch>
Rendered body type: text/plain

Johan Forrer wrote:

> I received mine some weeks ago, and waded through a lot of documentation since.
> Its a somewhat complex part to master and program, and appears to be
> designed for
> use with C in mind. Though I am not quite sure yet how for one would get
> with that,
> i.e. how efficient the code generator is.

I tend to disagree. I don't know the SHARC EZKIT, but I've done some

work with a SHARC DSP some time ago. I found the ADI devices easier
to program than TI devices and even Mot devices. The C compiler
performs good compared to other DSP compilers, and very good
compared to the sorry Motorola C compiler.

Tom

30. L L GRACE DSP-12

From: David Armstrong <darmstrong@tti-ltd.co.uk>
Date: Fri, 15 Aug 1997 09:56:07 -0000
To: "'dsp@tapr.org'" <dsp@tapr.org>
Message-ID: <01BCA961.93D1BFD0@r03-21.octacon.co.uk>
Rendered body type: text/plain

Are there any users of the dsp-12 out there ?
Looking for any updated code or technicial info .

Wish to look into using dsp-12 on hf but need higher baud rates (around 1200 bps) but also narrower
band width because of rx filters are centered on bell 103
Tones (2100 2300) so don't have much to play with without mods

So also looking at other protocols

Any help

73's

david G0JQO

31. Re: [DSP:597] Re: New AD 21061 EVM

From: "Jim Lynch" <k4gvo@mindspring.com>
Date: Fri, 15 Aug 1997 05:21:27 +0000
To: dsp@tapr.org
Message-ID: <199708150921.FAA20175@brickbat8.mindspring.com>
Rendered body type: text/plain

I was invited to a one-day seminar on DSP that was pretty cheap and
included an EZ-KIT. All I've done with it is build a computer
controlled mixer, however. I now have a DSP-93, an AD EZ-KIT and the
Mot. EVM. I still don't know what I'm doing. (Sigh) I think I'm
too dumb to learn DSP programming. Anyway the EZ-KIT looks like a
pretty complete little board and it sells for about $90 so it is a
deal for anyone wanting to dabble in DSP.

73, Jim.
Jim Lynch Fayetteville, GA K4GVO
'86 GL1200I k4gvo@mindspring.com 44.36.34.20

32. Re: [DSP:603] Re: New AD 21061 EVM

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 15 Aug 1997 08:22:20 -0800
To: dsp@tapr.org
Message-ID: <199708151522.IAA29245@peak.org>
Rendered body type: text/plain

Tom,

>Johan Forrer wrote:
>
>
>> I received mine some weeks ago, and waded through a lot of documentation
since.
>> Its a somewhat complex part to master and program, and appears to be
>> designed for
>> use with C in mind. Though I am not quite sure yet how for one would get
>> with that,
>> i.e. how efficient the code generator is.
>

>I tend to disagree.

Its OK to disagree!!

>I don't know the SHARC EZKIT, but I've done some
>work with a SHARC DSP some time ago. I found the ADI devices easier
>to program than TI devices and even Mot devices. The C compiler
>performs good compared to other DSP compilers, and very good

>compared to the sorry Motorola C compiler.
>

I have a serious problem not having the use of a hardware debugger. Although
I can get around, as I have done in the past without that, you are at a
disadvantage regardless how much experience or smarts you have. The SHARC
has enough capabilities to support something that at least like what TI
offered with the C31 DSK - not perfect, but useable. It appears to be a
marketing issue, not a technical one.

The other major problem that I have with the EZ-KIT is that you cannot
build/use a new/alternate architecure file - all the tools and utilities for
the kit are disabled for using an alternate .ACH file. That leaves you have
to use whatever is given. To some extent, this limits what you can explore-
how/what/where you define and name system components. It's OK for playing
with the examples, but I would like to go beyond those.

The 2181 EZ-KIT, if you remember, had the same problem - I have seen several
people being very critcal about that. Fortunately, ADI did not disable the
software tools when you gave it an alternate .ACH file. That allowed one to
work around that problem by either hand-editing .ACH files, or since I had
the set of professional tools for the 21xx family, I just used that to help
others out that needed a special .ACH file. It seems that ADI has some
hangup about giving experimentors full access to defining their own
architecture files. Perhaps there is some kind soul that can help us out
around this problem with the SHARC (hint, :-))

Looking at the more positive side and making the best of what is given for
the money: have you found that one can do serious floating point DSP on the
SHARC, i.e., use the implementations and models that we have used in the
past for things like modems, in C - things that we have traditionally done
on the fixed point DSPs (from TI, ADI, Motorola), but in assembly? I think
that is what a lot of people are expecting.

If you can shed some insight on that, that will be worth food for thought.

73's

--Johan

P.S.

I have not yet given up on the EZ-KIT, in fact I'm now happily porting one
of my favorite programs to run on it to get some hands-on experience and to
see what one can gain from the additional dynamic range it offers. This of
course is all assembly. Later I hope to see how far one will get doing same
in C.

33. thanks for EVM56002 www referrals

From: "Thomas M. Alldread" <tmaldred@mail.island.net>
Date: Sun, 17 Aug 1997 07:18:20 -0700
To: <dsp@tapr.org>
Message-ID: <199708171540.IAA19617@norm.island.net>
Rendered body type: text/plain

Greetings:

        Thanks for the referral to the TAPR site folks! I shall check that site
out to see what is new.

Thanks again and 73,

Tom, VE7TMA

34. Re: New AD 21061 EVM

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Tue, 19 Aug 1997 14:43:32 +0200
To: dsp@tapr.org
Message-ID: <33F994F4.63E4@ife.ee.ethz.ch>
Rendered body type: text/plain

> I have a serious problem not having the use of a hardware debugger. Although

That's a question of style. When I've hacked my rt kernel for the
Mot EVM, I used the simulator extensively, but otherwise I had only
a simple downloader. I once had a tough bug to find (it turned out
to be a 2 cycle interrupt window) which I tried to find with the

domain tech debugger, but in the end I was faster with the simulator...

> The other major problem that I have with the EZ-KIT is that you cannot
> build/use a new/alternate architecure file - all the tools and utilities for

I don't know about that, we have a site license for the unlimited
Sun tools :-)

> Looking at the more positive side and making the best of what is given for
> the money: have you found that one can do serious floating point DSP on the
> SHARC, i.e., use the implementations and models that we have used in the
> past for things like modems, in C - things that we have traditionally done
> on the fixed point DSPs (from TI, ADI, Motorola), but in assembly? I think
> that is what a lot of people are expecting.

You can program very differently in C - trig functions
in the innermost loop of say a sine generator won't work well,
be it on a Sharc or a Pentium. If you make good use of library
functions such as fir, you'll certainly be able to do many things
in C. I impemented a wideband FM demod completely in C - and
it could do in excess of 100k complex input samples/s!

73s Tom

---

35. You're Invited - TMS320C6x DSP Systems Seminar

From: dspnews@dspnet.com (by way of Greg Jones, WD5IVD)
Date: Tue, 19 Aug 1997 11:53:33 -0500
To: " TAPR/AMSAT DSP "<dsp@tapr.org>
Message-ID: <v03110702b01f7ffd9b68@[192.168.1.2]>
Rendered body type: text/plain

Spectrum and Texas Instruments Present...

TMS320C6x DSP Systems Seminars

Sept 22, 1997	Sept 23, 1997
Sheraton Tara Hotel	Govenor Morris Hotel
2 Whippany Road	1657 Worcester Road
Framingham, MA	Morristown, New Jersey
8am - 12pm	8am - 12pm

You're invited to Spectrum Signal Processing's half day seminar
focusing on the many development issues associated with Texas
Instruments' new 1600 MIPS TMS320C6x DSP processor. At this free
seminar, presenters from Spectrum and TI will step you through the
design challenges involved in developing a DSP system based on this
powerful new processor architecture.

Agenda:

- Continental Breakfast
- 'C6x Chip Architecture
- Spectrum's TMS320C6x Boards
- 'C6x Software Discussion
- Design Issues, Applications & System-Level Solutions

Other Locations:

Oct 6 1997	Baltimore, MD	Oct 15 1997	Calgary, AB
Oct 7 1997	Tyson's Corner, VA	Oct 17 1997	Ottawa, ON
Oct 9 1997	San Jose, CA	Oct 20 1997	Dallas, TX
Oct 10 1997	Los Angeles, CA	Oct 21 1997	Chicago, IL
Oct 14 1997	Bellevue, WA		

Seats are limited at each seminar location, so reserve your spot soon.
To RSVP,fax or email your reply to Cathy Hallam or visit Spectrum's web
site at http://www.spectrumsignal.com.

Cathy Hallam@SpectrumSignal.com
phone: (604) 421-5422 or (800) 663-8986
fax: (604) 421-1764

****
REGISTRATION FORM (please fax or e-mail)

Name:
Company:
Address:
Phone:
Fax:
E-Mail:
Date of Seminar You Wish to Attend:
Applications:

( ) Yes, I will be attending

( ) No, I will not be attending. Please send me:

( ) Spectrum's 1998 Catalog on CD
( ) Seminar follow-up package
( ) Have a sales engineer phone me

36. New Uploads for PSK31, MT63ASC

From: forrerj@peak.org (Johan Forrer)
Date: Wed, 20 Aug 1997 12:02:13 -0800
To: dsp@tapr.org, HFSIG@tapr.org
Message-ID: <199708201903.MAA08235@peak.org>
Rendered body type: text/plain

Hi all,

Seems like some postings were lost during the time the server was down - so
here goes again (third time is perhaps lucky).

I have uploaded recent code releases that may be of general interest to the
DSP code repository. They will be available as soon as system admin moves
them to:

ftp://ftp.tapr.org/tapr/SIG/dsp/recent_uploads/mt63asc1.* and psk31_1.*

MT63ASC --- by Pawel Jalocha, SP9VRC: 63 tone,
            1000 Hz bandwidth, 630 bps modem.
            Very impressive performance.

PSK31   --- by Peter Martinez, G3PLX. This is the
            European PSK system. Works in very poor/low
            band conditions. Outstanding performance
            only 62.5 Hz bandwidth! Comes with excellent
            user interface.

Thanks to Pawel and Peter for these contributions - we are indebted to them
for permission to distribute these code packages: source code, loadable
files and instructions for you to see and explore.

Enjoy!

--Johan

37. Re: [DSP:610] New Uploads for PSK31, MT63ASC

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Wed, 20 Aug 97 14:53:10 CDT
To: dsp@tapr.org
Message-ID: <9708201953.AA21607@aa5df.sps.mot.com>
Rendered body type: text/plain

Johan,

 > I have uploaded recent code releases that may be of general interest to the
> DSP code repository. They will be available as soon as system admin moves
> them to:
>
> ftp://ftp.tapr.org/tapr/SIG/dsp/recent_uploads/mt63asc1.* and psk31_1.*

done.

73,
Tim

38. SINE/COSINE WAVE GENERATION

From: Charles Brain <chbrain@dircon.co.uk>
Date: Thu, 21 Aug 1997 12:36:31 +0100
To: dsp@tapr.org

Message-ID: <33FC283F.32F93FE2@dircon.co.uk>
Rendered body type: text/plain

Hello,

To prevent me having to re-invent the wheel, does anyone have
any CODE to produce sine/cosine waves for the 56002. I need to
       ^^^^^^
produce a programmable sin/cos oscillator with 1Hz (prefer 0.1Hz)
resolution between 600Hz and 3Khz.

- Charles G4GUO

39. Re: L L GRACE DSP-12

From: Bent Bagger <bb@dscc.dk>
Date: Thu, 21 Aug 1997 15:31:05 +0200
To: dsp@tapr.org
Message-ID: <33FC4319.41C6@dscc.dk>
Rendered body type: text/plain

On Fri, 15 Aug 1997 09:56:07 David Armstrong wrote:

> Are there any users of the dsp-12 out there ?

Yes, I for one. I have a DSP-12 with the 1 MB RAM option. I use
it for satellite work and it performs extremely well doing that.

> Looking for any updated code or technical info.

Since LL Grace changed owner some time ago, the DSP-12 is no
longer maintained by LL Grace, so we are on our own now. I have
the developer's tool kit, so the basis should be there.

Lately I have been contemplating writing a DSF 70 time code
receiver, just to get a feel of how to write DSP code, but lack
of time has so far prevented any progress.

Best 73 de Bent/OZ6BL
(oz6bl@amsat.org)

40. Re: [DSP:612] SINE/COSINE WAVE GENERATION

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Thu, 21 Aug 97 10:08:09 CDT
To: dsp@tapr.org
Message-ID: <9708211508.AA23974@aa5df.sps.mot.com>
Rendered body type: text/plain

> To prevent me having to re-invent the wheel, does anyone have
> any CODE to produce sine/cosine waves for the 56002. I need to
>   ^^^^^^
> produce a programmable sin/cos oscillator with 1Hz (prefer 0.1Hz)
> resolution between 600Hz and 3Khz.

Charles:

http://www.mot.com/SPS/DSP/documentation/appnotes.html

download APR1/D Digital Sine-Wave Synthesis using the DSP56001/2. It
contains code that will generate a sine wave based on interpolated
values in the sine table in X ROM.

Another method is to use an IIR oscillator, but at 1Hz, that probably
won't work too well.

Also, be aware that the codec on the 56002EVM has a lower cutoff around
5Hz if I remember correctly. Actually, the filtering is probably as a
result of C194 & C195 on LINE OUT. The Headphone connection does not
have caps.

Hope this helps.

tim

41. Using EVM interface to COHERENT BPSK

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 22 Aug 1997 08:31:48 -0800
To: DSP@tapr.org, HFSIG@tapr.org
Message-ID: <199708221532.IAA14998@peak.org>

Rendered body type: text/plain

Hi,

Those that are planning on using the PSK31 or Coherent DSP code, please take note:

1) You will NOT be able to use these with the N1OWU FLASH-resident loader.
     This is because these programs, or any other for that matter, that sets up their own reset/interrupt
     vectors, will interfere with the LEONID/BIOS-style environment. Strange unexplained behavior
     otherwise will result.

     *****Use Doug's loader only with programs that conforms to Leonid/BIOS usage******

2) If you wish, you can place either of PSK31 or COHEVM in FLASH by following Doug's procedure
    in FLSHBOOT. That really is very slick and you may use the flash programming program's default settings.
    Using the OnCE debugger, load PSK31 (or COHEVM), then load FLSHBOOT, GO, wait till the debugger
    regains control and you're done.

Good luck, 73

--Johan

42. Aw: [DSP:615] Using EVM interface to COHERENT BPSK

From: "Paulus" <paulstra@xs4all.nl>
Date: Fri, 22 Aug 1997 20:21:54 +0200
To: <dsp@tapr.org>
Message-ID: <199708221824.UAA16004@smtp2.xs4all.nl>
Rendered body type: text/plain

Hello Johan,

Is it possible to have more flashproms in parallel ?
So by switching you can choose the programs ?
Yes an pity that can not use the dl.exe to load the coherent/psk31 but perhaps with
2 flashproms in parrallel we can avoid the problem ?

BTW: Can we agree upon which sideband to use for MT63ASC ?
For coherent and CCW I am running USB (using the CW-xtalfilter for these modes) , so perhaps USB would be nice for all bands for MT63asc ?

Our first 3 way qso (pa0ihd, oh/dk4zc and me, last night on 80 mtrs) went wrong at the start hi with the usb/lsb problem using mt63asc. After we discovered the problem and tuned in again using PSK31, we had for abt 3 hours fb qso,s .
And when there is heavy qrm (s-9 plus 20 db hi), you can try to use the Width tuning on the xtalfilter with MT63asc.

73 de Paul, pa0ocd

43. Re: [DSP:616] Aw: Using EVM interface to COHERENT BPSK

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 22 Aug 1997 13:43:22 -0800
To: dsp@tapr.org
Message-ID: <199708222044.NAA29314@peak.org>
Rendered body type: text/plain

Hello Paul,

>Is it possible to have more flashproms in parallel ?
>So by switching you can choose the programs ?

I do not see any readon why not. You can add a switch to select which one to boot from.
There is not other easy solution to make things compatible.

>BTW: Can we agree upon which sideband to use for MT63ASC ?
>For coherent and CCW I am running USB (using the CW-xtalfilter for these
>modes) , so perhaps USB would be nice for all bands for MT63asc ?

In my case on the Icom 751, that would not make much sense as all the modes,

USB, LSB and CW all come out on a different freqeuncy. In my opininon, it
would make sense to keep everything either in USB or LSB, but not to switch
things around. I already have a hard time explaining to others how to make
up for the 1000 Hz and 800 Hz differences between Coherent and PSK31. After
much explaining they anyway tune up on the wrong place anyhow :-). Changing
the sideband will be just add confusion that is for certain.

>
>Our first 3 way qso (pa0ihd, oh/dk4zc and me, last night on 80 mtrs) went
>wrong at the start hi with the usb/lsb problem using mt63asc. After we
>discovered the problem and tuned in again using PSK31, we had for abt 3
>hours fb qso,s .

Sounds great. We are planning some MT63ASC tests the weekend on 10140 (30
meters.).

73 for now,

--Johan

44. MWAVE

From: Keith McElveen <jkm@mclean.sparta.com>
Date: Fri, 22 Aug 1997 16:52:38 -0400
To: dsp@tapr.org
Message-ID: <33FDFC16.159E@mclean.sparta.com>
Rendered body type: text/plain

Hi all,
Has anybody done any work with the Mwave dsp set from IBM? It comes on
the Aptivas and Thinkpads and reportedly is fast enough to do HF modem
stuff. If so, does any one know where I can buy Mwave PC cards and have
you had any luck using them? I tried a few vendors, but they don't seem
to have heard of them.

Thanks,
Keith McElveen
jkm@mclean.sparta.com

45. Re: [DSP:618] MWAVE

From: slugmusk@alias.flash.net
Date: Fri, 22 Aug 1997 16:50:33 -0500
To: dsp@tapr.org
Message-ID: <33FE09A8.4B1E@alias.flash.net>
Rendered body type: text/plain

dsp@tapr.org wrote:
> Hi all,
> Has anybody done any work with the Mwave dsp set from IBM?

No, but I have plans to....

> It comes on the Aptivas and Thinkpads and reportedly is fast enough to do HF modem
> stuff.

As supplied with the IBM machines, it is configured as a high fidelity
sound card and V.34 modem, so I doubt HF modem requirements are likely
to tax it.

> If so, does any one know where I can buy Mwave PC cards and have
> you had any luck using them? I tried a few vendors, but they don't seem
> to have heard of them.

There is a reasonably good deal of information about MWave in general on
IBM's site, including some vendor information and developer stuff.
Beware, however, that the main thrust is towards high speed modems and
multimedia.

http://www.chips.ibm.com/products/mwave/

Robert

46. Re: [DSP:618] MWAVE

From: forrerj@peak.org (Johan Forrer)
Date: Sat, 23 Aug 1997 00:13:24 -0800
To: dsp@tapr.org
Message-ID: <199708230714.AAA27573@peak.org>
Rendered body type: text/plain

Keith,

I bought a Windsurfer card some three or four years ago when they first were announced. It was a special deal in that it came with the full Intermetrics software development kit. That incidentally includes a C compiler, debugger etc. It also includes an operating system and a well-thought out API for Windows 3.0 and OS/2. The main reason for getting the card was. like you mention, doing DSP work

The card has really outstanding audio quality, but unfortunately IBM has long discontinued support for them. They also have no Windows 95 or NT drivers. I sort of limped along with it, but later just got annoyed with all the incompatibilites and failure working with some of the programs that required "soundblaster" compatibility. Also there was no chance of getting a 33.6 or higher speed modem - not that the card could not do that, just that IBM stopped supporting it. In fact, the 22.8 modems were really nice.

>Hi all,
>Has anybody done any work with the Mwave dsp set from IBM? It comes on
>the Aptivas and Thinkpads and reportedly is fast enough to do HF modem
>stuff. If so, does any one know where I can buy Mwave PC cards and have
>you had any luck using them? I tried a few vendors, but they don't seem
>to have heard of them.

The card and development software is collecting dust - if you are interested in the whole bundle, e-mail me and we can talk about it some more.

--Johan

47. Re: [DSP:618] MWAVE

From: Anthony Monteiro <aa2tx@postoffice.worldnet.att.net>
Date: Sun, 24 Aug 1997 00:41:19 +0000
To: dsp@tapr.org, dsp@tapr.org
Message-ID: <19970824004117.AAA5901@LOCALNAME>
Rendered body type: text/plain

At 08:57 PM 8/22/97 +0000, Keith McElveen wrote:
>Hi all,
>Has anybody done any work with the Mwave dsp set from IBM? It comes on
>the Aptivas and Thinkpads and reportedly is fast enough to do HF modem
>stuff. If so, does any one know where I can buy Mwave PC cards and have
>you had any luck using them? I tried a few vendors, but they don't seem
>to have heard of them.
>
>Thanks,
>Keith McElveen
>jkm@mclean.sparta.com
>
Hi Keith,
I have not used one but try
Tiger Software 1-800-888-4437
They had it in their catalog.
73,
Tony AA2TX
Tony AA2TX@amsat.org

48. Re: [DSP:617] Re: Aw: Using EVM interface to COHERENT BPSK

From: "L. J. Shepherd" <ljs@west.net>
Date: Sat, 23 Aug 1997 23:54:28 -0700
To: dsp@tapr.org
Message-ID: <3.0.2.32.19970823235428.00694a18@west.net>
Rendered body type: text/plain

Hello Johann: Heard some activity just below 10140 USB at about 2350 PDST. Was that the MT63asx tests in progress. Are you using USB on your IC-751 ? I just dl'd MT63asc from the TAPR ftp site........73, JIM   K6OYY

At 03:47 PM 8/22/97 -0500, you wrote:
>Hello Paul,
>
>>Is it possible to have more flashproms in parallel ?
>>So by switching you can choose the programs ?
>
>I do not see any readon why not. You can add a switch to select which one to
>boot from.

>There is not other easy solution to make things compatible.
>
>
>>BTW: Can we agree upon which sideband to use for MT63ASC ?
>>For coherent and CCW I am running USB (using the CW-xtalfilter for these
>>modes) , so perhaps USB would be nice for all bands for MT63asc ?
>
>In my case on the Icom 751, that would not make much sense as all the modes,
>USB, LSB and CW all come out on a different freqeuncy. In my opininon, it
>would make sense to keep everything either in USB or LSB, but not to switch
>things around. I already have a hard time explaining to others how to make
>up for the 1000 Hz and 800 Hz differences between Coherent and PSK31. After
>much explaining they anyway tune up on the wrong place anyhow :-). Changing
>the sideband will be just add confusion that is for certain.
>
>>
>>Our first 3 way qso (pa0ihd, oh/dk4zc and me, last night on 80 mtrs) went
>>wrong at the start hi with the usb/lsb problem using mt63asc. After we
>>discovered the problem and tuned in again using PSK31, we had for abt 3
>>hours fb qso,s .
>
>Sounds great. We are planning some MT63ASC tests the weekend on 10140 (30
>meters.).
>
>73 for now,
>
>--Johan
>
>
>

49. EVM setup

From: "L. J. Shepherd" <ljs@west.net>
Date: Sun, 24 Aug 1997 20:00:42 -0700
To: dsp@tapr.org
Cc: forrerj@peak.org
Message-ID: <3.0.2.32.19970824200042.0068c30c@west.net>
Rendered body type: text/plain

Hello Group: Johan's recent work with the new modems has sparked my
interest and I am trying to reconstruct my former working EVM
configuration, but this time with a new Windows 95 operating system.

                  I've been able to load the EVM Slowbpsk program and get it running
from the win95 environment, but have not been able to view the output on my
monitor using a terminal emulator at the host port on the EVM.
Unfortunately when I loaded win95 I forgot to note the settings on my
former win3.11 terminal program.......this should not be a major task to
setup, but so far I've been unsuccessful using a wide variety of baud rates
and other parameters. If someone would please refresh my memory with
respect to what works for port parameters with the EVM, I would appreciate it.

                   When Slowbpsk is running (as monitored at the headphone port), I am
then looping back the left channel out (ring) to the left channel in (ring)
jack. I'm expecting to see text output on the terminal of course.......I
did have it working nicely in my old Win 3.11 setup, but I do recall that I
had some trouble making it work........and obviously, so far, can't recall
what I did.

                   I did hear some activity just below 10140 on Saturday evening about
2350 pdst, but do not know if that was the group doing MT63 testing......

                   Comments/suggestions would be appreciated.   73   JIM K6OYY

50. Re: [DSP:623] EVM setup

From: forrerj@peak.org (Johan Forrer)
Date: Sun, 24 Aug 1997 22:14:43 -0800
To: dsp@tapr.org
Message-ID: <199708250515.WAA05612@peak.org>
Rendered body type: text/plain

Hi Jim,

>   When Slowbpsk is running (as monitored at the headphone port), I am
>then looping back the left channel out (ring) to the left channel in (ring)
>jack. I'm expecting to see text output on the terminal of course.......I
>did have it working nicely in my old Win 3.11 setup, but I do recall that I
>had some trouble making it work........and obviously, so far, can't recall
>what I did.

As far as I remember, SLOWBPSK works just fine using a regular terminal program such as Procomm or Telix, etc. I cannot remember using it in a DOS box under Windows myself, but given the right ownership of COM ports, IRQ's etc, it probably could be done. However, I would recommend that you first try getting it working in a regular DOS environment before taking on the subtleties of Windows.

I can also highly recommend that you download the G3PLX version of PSK31 from the DSP code repository in the "recent_uploads" subdirectory. This is a new implementation of Pawel's SLOWBPSK scheme and is 100% compatible when it is in ASCII mode. PSK31 also has the "VARICODE" mode that really works exceptionally well in poor and noisy band conditions. I use PSK31 regularly to QSO with Bill, WB6RIJ in Santa Barbara even in S0 conditions. Nice thing is that it works very well under Win95 on a reasonably-fast 486/Pentium.

While you doing downloading , also grab the MT63ASC.ZIP package - we may be able to get you to join in testing that. The signals you heard on 10140 could have been someone testing out the 63 tone system. It sounds kind of like a flock of warbling birds at the beginning of a frame.

Perhaps we can expect to hear you on 7081 (carrier) in the evenings (around 6:00 - 6:30 pm PST)? I usually leave the receiver on frequency just in case I hear or recognize a CW-ID.

73's

--Johan, KC7WW

P.S. I received the following bit of e-mail from G3PLX this weekend:

"We had a 5-way round-table on PSK31 on
80m last night for the first time and there are now 7 stations QRV
namely G3PLX, G3FHL, G3NDO, G0TJZ, PA0IHD, PA0OCD and
OH/DK4ZC."

Sounds like they are having fun.

-J

51. Sound Card Packet Modems??

From: "(SV2AGW) George Rossopoylos" <sv2agw@the.forthnet.gr>
Date: Mon, 25 Aug 1997 14:05:26 +0300
To: <dsp@tapr.org>
Message-ID: <199708251108.OAA10381@nefeli.forthnet.gr>
Rendered body type: text/plain

Hi
Is there any packet modem software for sound cards (Sound Blaster mainly)??
If so i wish to port the code to WIN95 writing a vxd.
It could be a great facility to packet users using sond card and win95 to do packet.

73

SV2AGW
George Rossopoulos
e-mail:sv2agw@the.forthet.gr
packet:SV2AGW@SV2DXC.TSL.GRC.EU
http://www.forthnet.gr/sv2agw/
http://www.intranet.gr/isefi/rossopou/rossopou.htm

52. EVM56K for sale

From: Kory Hamzeh <kory@avatar.com>
Date: Mon, 25 Aug 1997 10:10:42 -0700 (PDT)
To: dsp@tapr.org, hfsig@tapr.org
Message-ID: <Pine.BSF.3.96.970825101010.1633A-100000@ns1.avatar.com>
Rendered body type: text/plain

I have an EVM56K here which is gathering dust. It includes all of the docs and software. This was not through the TAPR purchase. I would like to get $100 + shipping for it. It has been socketed for the flash chip and I'll include the flash chip.

Thanks,
Kory
AC6RN

53. One question about CS4215

From: Vittorio Moretti <orso@comune.modena.it>
Date: Tue, 26 Aug 1997 07:13:31 +-200
To: "'dsp@tapr.org'" <dsp@tapr.org>
Message-ID: <01BCB1EF.EFFF0920@usr2.sassuolo.orion.it>
Rendered body type: text/plain

In CS4215's data book I read:

Absolute maximum ratings
analog input voltage from -.3 to (VA1,VA2 (5 Volts) +.3) Volt

My question is:
"Can I use Line input like an D/A converter for reading 0-5 volt?"
73 IK4IRO

54. PSK31 Up on the EVM

From: "L. J. Shepherd" <ljs@west.net>
Date: Tue, 26 Aug 1997 00:39:15 -0700
To: dsp@tapr.org
Cc: forrerj@peak.org
Message-ID: <3.0.2.32.19970826003915.0068d4e4@west.net>
Rendered body type: text/plain

Hello Johan and Group:

Thanks to your clarification I was able to get the EVM up and running on PSK31 this evening. For those not familiar with PSK31, it is a 31 baud TTY-like program that is optimized for weak signal conditions. It has a great User Display Interface included with an easy to user tuning indicator.

As you suggested, I just loaded PSK31.cld, typed 'go' and switched my PC's serial port cable from the 'OnCE' port to the 'HOST' port. I then switched win95 to msdos mode and ran the "run.bat" file (after editing with my com port designation, my callsign and location).

The nice user interface display came up immediately with the tuning indicator displaying random noise as expected. I began to get excited at this point and quickly connected my hf receiver to the tip jack input of the EVM, turned on the xtal calibrator and tuned it in using the tuning indicator, which is sensitive. The indicator worked immediately. Shutting off the calibrator...........

I listened on 7081 but hearing no signals, I looped the EVM tip jack input and output, activated the beacon mode and immediately saw my callsign and location displayed on the text section of the display. So it all appears to be working so far. The cw id sent my callsign just as it was supposed to do !

All that remains is to replace my clip leads with a simple interface cable to my old IC745 and it should be ready to test on the air.

I do have a couple of questions please Johan:
-- What sideband should I use on 7081 (no signals this evening) ?
-- Is there a source for a complete description of the "F" commands
   and the ALT-F commands in the PSK31 User Interface ?

This appears to be a very simple system to implement to get some immediate fun out of the EVM (once I learned it's not necessary to load BIOS !). Those in the DSP group with an hf rig and just a little time can have it up and running in less than a day.

Thanks again Johan for your comments and clarification !

73,   JIM SHEPHERD K6OYY   TAPR 502

55. Re: [DSP:615] Using EVM interface to COHERENT BPSK

From: dbraun@ichips.intel.com
Date: Mon, 25 Aug 1997 19:36:49 +0300
To: dsp@tapr.org
Message-ID: <199708261144.AA107615845@dtthp135.jf.intel.com>
Rendered body type: text/plain

Johan's "Coherent" modem program is quite simple, and it can
easily be ported to work with Leonid and my (N1OWU) loader.
I started a couple of weeks ago, but then I left for vacation.
When I get it up and running, I'll post it.

I haven't had a chance to look at the PSK31 program, so I
have no idea how difficult it would be to port.

Doug
N1OWU

>Those that are planning on using the PSK31 or Coherent DSP code, please take
>note:
>
>1) You will NOT be able to use these with the N1OWU FLASH-resident loader.
>   This is because these programs, or any other for that matter, that sets
>up their own reset/interrupt
>   vectors, will interfere with the LEONID/BIOS-style environment. Strange
>unexplained behavior
>   otherwise will result.
>
>   *****Use Doug's loader only with programs that conforms to Leonid/BIOS
>usage******
>

56. Candy is dandy and flowers fine... but giving Mars is marvelous!!!

From: mars_guy@tharsis.mars.com
Date: Thu, 28 Aug 97 01:07:07 EST
To: our.friends.and.family@home.com
Message-ID: <199708280517.BAA15888@home.cynet.net>
Rendered body type: text/plain

>>>>>>>>>>>>>>>>> -oOo- <<<<<<<<<<<<<<<<<

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protected in Geneva, Switzerland. Registrants'
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            -- 21st Century Space Novelties --

>>>>>>>>>>>>>>>>> -oOo- <<<<<<<<<<<<<<<<<

57. Re: [DSP:625] Sound Card Packet Modems??

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Thu, 28 Aug 1997 10:52:27 +0200
To: dsp@tapr.org

Message-ID: <34053C4B.47E3@ife.ee.ethz.ch>
Rendered body type: text/plain

(SV2AGW) George Rossopoylos wrote:
> Is there any packet modem software for sound cards (Sound Blaster mainly)??
> If so i wish to port the code to WIN95 writing a vxd.
> It could be a great facility to packet users using sond card and win95 to
> do packet.

Well yeah I know you're not liking it, but PC/FlexNet can do that,
and there's already Windows95 code included :-)

see: http://home.pages.de/~flexnet

73s
Tom

58. Re: [DSP:631] Re: Sound Card Packet Modems??

From: "(SV2AGW) George Rossopoylos" <sv2agw@the.forthnet.gr>
Date: Thu, 28 Aug 1997 14:05:48 +0300
To: <dsp@tapr.org>
Message-ID: <199708281106.OAA07534@nefeli.forthnet.gr>
Rendered body type: text/plain

Hi Tom

Yeah you are right!!!!!! :-)
But as i already wrote this is not a win95 application. It is a dos tsr
that is called from win95.
So you have to load it always even if you dont want to do packet or to
modify each time the autoexec.bat.
I have already wrote a reall win95 device driver for baycom and now i am
finishing another device driver for
DRSI cards. I will continue with device drivers for baycom scc cards and
also optoscc. That way AGW packet engine will support almost all the
available hardware.
So i am looking for source code for other harware to port it to win95.

73
George Rossopoulos
e-mail:sv2agw@the.forthet.gr
packet:SV2AGW@SV2DXC.TSL.GRC.EU
http://www.forthnet.gr/sv2agw/
http://www.intranet.gr/isefi/rossopou/rossopou.htm

> From: Thomas Sailer <sailer@ife.ee.ethz.ch>
> To: dsp@tapr.org
> Subject: [DSP:631] Re: Sound Card Packet Modems??
> Date: ÐÝìðôç, 28 Áõãïýóôïõ 1997 11:54 ðì
>
> (SV2AGW) George Rossopoylos wrote:
> > Is there any packet modem software for sound cards (Sound Blaster
mainly)??
> > If so i wish to port the code to WIN95 writing a vxd.
> > It could be a great facility to packet users using sond card and win95
to
> > do packet.
>
> Well yeah I know you're not liking it, but PC/FlexNet can do that,
> and there's already Windows95 code included :-)
>
> see: http://home.pages.de/~flexnet
>
> 73s
> Tom

59. MT63 and PSK31

From: dbraun@ichips.intel.com
Date: Thu, 28 Aug 1997 19:06:37 +0300
To: dsp@tapr.org
Message-ID: <199708281610.AA095884620@dtthp135.jf.intel.com>
Rendered body type: text/plain

Hello all,

I have these programs up and running at my Athens,
Greece (KM17VX) QTH. I would glad to try a sked

or round-table QSO. If you have anything scheduled,
or want to set up something, let me know. I
am running 100W into a vertical on any band.

Thanks,

Doug
SV/N1OWU

P.S.: I will be on a trip from Aug. 31 to Sep. 4.

60. Re: [DSP:610] New Uploads for PSK31, MT63ASC

From: dbraun@ichips.intel.com
Date: Thu, 28 Aug 1997 17:53:06 +0300
To: dsp@tapr.org
Message-ID: <199708281610.AA095764619@dtthp135.jf.intel.com>
Rendered body type: text/plain

Hello all,

KC6WW mentioned that that the PSK31 HF modem program
that he uploaded to ftp.tapr.org could not be loaded
into the EVM with the N1OWU (that's me) boot loader
program.

Fortunately, a trivial code change will (mostly) fix this.
In the psk31.asm source code, look at lines 23 and 34.
They look like this:

```
        org    X:$0
and
        org    Y:$0
```

They set the memory location of X and Y data.
The current location (0) will clobber the Leonid
monitor data. Change them to $18 (18 hex), e.g.

```
        org    X:$18
```

Now a N1OWU/Leonid-equipped EVM will load psk31 just fine.
There is probably no reason why this fix could not be
applied to the "official" PSK31 released version.

The fix is not perfect, however, because the DL.EXE program
still cannot reset the EVM, since the Leonid code is not
mandling the serial port. Oh well, you just have to
reset it by hand when you are done...

Another tip: Add the "dl psk31.lod" command to the run.bat
file supplied with the PSK31 package.

61. Re: [DSP:632] Re: Sound Card Packet Modems??

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Thu, 28 Aug 1997 18:35:27 +0200
To: dsp@tapr.org
Message-ID: <3405A8CF.6BFC@ife.ee.ethz.ch>
Rendered body type: text/plain

> But as i already wrote this is not a win95 application. It is a dos tsr
> that is called from win95.

Then explain me on what other operating system you want to execute
".VXD" files.

> So you have to load it always even if you dont want to do packet or to
> modify each time the autoexec.bat.

That's a disadvantage, but it's being worked on.

> I have already wrote a reall win95 device driver for baycom and now i am

What's a real win95 device driver, if FLEXNET.VXD is no real device
driver in your eyes?

Tom

62. Re: [DSP:635] Re: Sound Card Packet Modems??

From: "(SV2AGW) George Rossopoylos" <sv2agw@the.forthnet.gr>
Date: Fri, 29 Aug 1997 08:24:26 +0300
To: <dsp@tapr.org>
Message-ID: <199708290713.KAA00106@nefeli.forthnet.gr>
Rendered body type: text/plain

> From: Thomas Sailer <sailer@ife.ee.ethz.ch>
> To: dsp@tapr.org
> Subject: [DSP:635] Re: Sound Card Packet Modems??
> Date: ÐÝìðôç, 28 Áõãïýóôïõ 1997 7:38 ìì
>
> > But as i already wrote this is not a win95 application. It is a dos tsr
> > that is called from win95.
>
> Then explain me on what other operating system you want to execute
> ".VXD" files.
>
> > So you have to load it always even if you dont want to do packet or to
> > modify each time the autoexec.bat.
>
> That's a disadvantage, but it's being worked on.
>
> > I have already wrote a reall win95 device driver for baycom and now i
am
>
> What's a real win95 device driver, if FLEXNET.VXD is no real device
> driver in your eyes?
>
>
> Tom

I dont want to say that Flexnet is not a good program. I am just saying
that it is a dos program.
Flexnet.vxd is an interface (like the one for BPQ) that its job is to
connect windows applications with the
flexnet dos tsr.The real packet code is executed in the dos tsr. Win95
applications cannot communicate directrly with dos tsr (due to protected
mode) they need to call the flexnet.vxd which then calls the flexnet Dos
tsr. What is the reall good thing with flexnet is that you can run all the
win95 tcpip applications with Packet.
Of course what flexnet does now with WIN95 has been done since win311 by
BPQ.Both programs are well known and valuable to packet. But in no way they
are WINdows applications.

My baycom and Drsi vxd are real device drivers. They have all the code to
manipulate the hardware and they need no other program to do this. Mine
device drivers are dynamic.They are loaded and executed only when they
needed. AGW Packet Engine also is quite different from both programs.First
of all is not a NODE. I dont like the idea every packet station and a node.
But the big difference is that Packet Engine can support up to 100
different windows applications at the same time. Meaning that with just a
tnc you can run at the same time different Packet programs. Of course you
can have not just a tnc but as many as 100 at the same time.
Not mentioning that Packet Engine is a 32bit application. Packet engine is
very light program with no computer performance degration. Also Packet
Engine is only 8 months old. First release during Christmas of 1996.
If you dont like or not the truth is that AGW Packet Engine is so far the
only true WIN95 (32 bit) Packet Application and most important is that it
is Free for Radio Amateur use.

But what i need now is source code for Sound card Packet Modems. I now
almost nothing about DSP programming. What i want to do is to support
almost every different tnc. SO far i support all the external tncs with
KISS mode,Baycom dummy serial modem and drsi cards. I will continue with
Baycom USCC.

73
George Rossopoulos
e-mail:sv2agw@the.forthet.gr
packet:SV2AGW@SV2DXC.TSL.GRC.EU
http://www.forthnet.gr/sv2agw/
http://www.intranet.gr/isefi/rossopou/rossopou.htm

63. Re: [DSP:636] Re: Sound Card Packet Modems??

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Fri, 29 Aug 1997 09:57:54 +0200
To: dsp@tapr.org
Message-ID: <34068102.37FA@ife.ee.ethz.ch>

Rendered body type: text/plain

> I dont want to say that Flexnet is not a good program. I am just saying
> that it is a dos program.
> Flexnet.vxd is an interface (like the one for BPQ) that its job is to
> connect windows applications with the
> flexnet dos tsr.The real packet code is executed in the dos tsr. Win95
> applications cannot communicate directrly with dos tsr (due to protected

Nice guess, but unfortunately wrong. Besides interfacing issues,
it also makes sure that the driver interrupt handlers run in
ring 0 pm, and _that_ is what is important from the performance
perspective.

> of all is not a NODE. I dont like the idea every packet station and a node.

I agree with you that from a reliability issue, users shouldn't
be nodes. Besides, nodes should run on something more reliable
than PC's. Furthermore, regulations here more or less prevent
users from becoming nodes :-)

However long as you do not load the FLEXDIGI module, FlexNet is not
a node. And FlexDigi isn't even available for Win95.

73s
Tom

64. Re: [DSP:636] Re: Sound Card Packet Modems??

From: Bdale Garbee <bdale@gag.com>
Date: Fri, 29 Aug 1997 03:15:16 -0600
To: dsp@tapr.org
Message-ID: <199708290915.DAA02824@chunks.gag.com>
Rendered body type: text/plain

In article <199708290713.KAA00106@nefeli.forthnet.gr> you wrote:

: But what i need now is source code for Sound card Packet Modems.

Look in the Linux kernel source tree. Several sound card packet modems are
integrated in the current 2.1.X development kernels. The bits are available
from lots of ftp sites, ftp.kernel.org is the one I often go to.

Bdale

65. PSK31 issue

From: dbraun@ichips.intel.com
Date: Fri, 29 Aug 1997 08:58:25 -0700
To: dsp@tapr.org
Message-ID: <199708291558.AA201590305@dtthp135.jf.intel.com>
Rendered body type: text/plain

Hello all,

I was trying to run PSK31, and I set it up in an audio loopback
mode. When transmitting, the phase indicator thingie indicated a
perfect SNR, of course, but the received text was mostly (but not
completely) garbled. I saw this in both ASCII and Varicode mode.

Should this have worked? Does PSK31 have a problem running full
duplex, or could I have possibly messed up the modem program by
making the Leonid-compability mods I mentioned yesterday?

Thanks,

Doug
SV/N1OWU

66. Re: [DSP:639] PSK31 issue

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 29 Aug 1997 10:21:38 -0800
To: dsp@tapr.org
Message-ID: <199708291722.KAA14329@peak.org>
Rendered body type: text/plain

Hello Doug,

>I was trying to run PSK31, and I set it up in an audio loopback
>mode. When transmitting, the phase indicator thingie indicated a

>perfect SNR, of course, but the received text was mostly (but not
>completely) garbled. I saw this in both ASCII and Varicode mode.

It should work in loopback as the program is full duplex - I even get to
print my own signal that is weakly leaking through somewhere without the
loopback wire in place - a bit noisy, but it works.

You migh just want to make sure that the TX and RX carriers are at the same
frequency (default=1000Hz), if they are not then it would not hear itself
and will not print. However, if the EVM hears the signal and you see the
dots on the top and bottom of the vertical bar on the phase display, it
should print.

>
>Should this have worked? Does PSK31 have a problem running full
>duplex, or could I have possibly messed up the modem program by
>making the Leonid-compability mods I mentioned yesterday?

You may have a problem somewhere.

Good luck, 73

--Johan

67. I goofed with PSK31

From: dbraun@ichips.intel.com
Date: Fri, 29 Aug 1997 21:09:23 +0300
To: dsp@tapr.org
Message-ID: <199708291811.AA215408274@dtthp135.jf.intel.com>
Rendered body type: text/plain

Hello again,

Yesterday I posted a simple patch to PSK31.ASM to enable it to be
loaded by the AlefNull dl.exe loader. Unfortunately, it doesn't
work. When I tested it, the program appeared to work correctly,
but it could not talk to itself in full-duplex mode.

I spent some more time and got it to work, but I had to change
more than handful of lines. There were two problems:

1: Psk31.asm had the internal X/Y memory almost full, and trying
to free up the first 24 bytes made it overflow into the sine ROM
space.

2: There are some bugs in the way that various filter buffers
were defined and allocated. The program apparently functions in
its original version, but any attempt to change the memory
address of anything can cause data structures to overlap or
become unaligned.

After I did this I actually noticed an improvement of sorts:
If you run the program with nothing connected to the audio I/O,
there is enough output-to-input crosstalk (maybe -60dB?) to
allow the program to decode its own output. When I did this
with the original program, the host interface program's phase
indicator thingie shows about 30 degrees of phase jitter
(but it still decodes without errors). After I made the changes,
the phase jitter went down to 5 or 10 degrees. Why, I
just can't say for sure. Possibly in the original version,
a single buffer location or filter coefficient was getting clobbered,
degrading the S/N ratio.

Anyway, here's my new fix. Below is all the data definition code.
Take this and and replace the first 148 lines of psk31.asm with it.
I.e., throw out every line before these two:

```
;P: code for bottom $40 loaded in X: (under the ROM)
          org    P:$000C,X:$10C
```

Good luck,

Doug
SV/N1OWU

```
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
; Patches by n1owu to make this Leonid-friendly
```

```
;
;31 baud PSK for 56002evm, g3plx
; serialbaudrate =19K2, changes to make use of port B0 as PTT line
; Mods at line nr:12, 191, 192, 193, 287 and  289 (PA0IHD 05-1997)
        page 132
        include 'ioequ.asm'
        include 'codequ.asm'

        opt mu


ctlwd0          equ     nopreamp+highpass+samprate8+stereo+data16
ctlwd1          equ     immed3state+xtal2select+bits64+codecmaster
;output level reduced
outputset       equ     phoneson+lineouton+(leftattn*10)+(rightattn*10)
inputset        equ     mikeselect+(15*monitorattn)+(leftgain*1)+(rightgain*0)

baud    equ     19200       ;SCI baudrate to PC
decsize equ     32         ;size of decimation filter
filsize equ     64         ;receive filter 128mS long at 500Hz
sample  equ     8000.00    ;system sample rate
sintab  equ     $100       ;address of sine table in ROM

        org     X:$18     ;codec receive timeslots
rslot0  dc      0       ;left audio from codec
rslot1  dc      0       ;right audio from codec
rslot2  dc      0       ;output level settings: bit 15 is busy flag
rslot3  dc      0       ;input level settings: bit 21 is overrange flag

ctlset  dc      ctlwd0  ;initialisation values for codec control mode
        dc      ctlwd1
        dc      0
        dc      0

        org     Y:$18     ;codec transmit timeslots
tslot0  dc      0       ;left audio
tslot1  dc      0       ;right audio
tslot2  dc      0       ;output level settings
tslot3  dc      0       ;input level settings: bit 21 is overrange enable

dtaset  dc      0           ;initialisation values for codec data mode
        dc      0
        dc      outputset
        dc      inputset
lastY   =       *

        org     L:lastY  ;oscillator objects
rxosc   ds      2        ;X:(0)=freq, Y:(0)=phase, X:(1)=cos, Y:(1)=sin
txosc   ds      2        ;X:(0)=freq, Y:(0)=phase, X:(1)=cos, Y:(1)=sin
hposc   ds      2
rxIQ    ds      1        ;filtered receive I and Q for headphone output
lastL   =       *

        org     X:rxosc     ;initial values for oscillator frequencies
rxfreq  dc      1000/sample*2     ;rx osc freq   (user can change it)
        org     X:txosc
txfreq  dc      1000/sample*2     ;tx osc freq   (user can change it)
        org     X:hposc
hpfreq  dc      1000/sample*2      ;headphone freq (stays at 1 kHz)

        org     X:lastL
timeslot dc      0               ;counts 0,1,2,3 at 32kHz
nexttx   dc      0               ;0, +1, or -1 for next tx bit
lasttx   dc      0               ;0, +1, or -1 for previous tx bit
txenv    dc      0               ;transmit envelope value
uiptr    dc      0               ;points to frame bytes from user
txdata   dc      0               ;bit0:toggle, bit1:txon
uindata  dc      0               ;user input data 8-bit to 24-bit shift-in

lastX   =       *

         org    Y:lastL
atncof   dc     -8.69245892963590E-0002   ;power series coeffs for arctan
         dc      3.36924589284536E-0001
pattern  dc     $000000          ;octant 0    bit23:      1=subtract 0=add
         dc     $A00000          ;       1    bits 22,21: quadrant offset
         dc     $800000          ;       7
         dc     $600000          ;       6
         dc     $C00000          ;       3
```

```
         dc     $200000          ;       2
         dc     $400000          ;       4
         dc     $E00000          ;       5

;jump table for user input bytes in a frame
ujtab   dc      settxd          ;user sending tx data
        dc      userin          ;user sending rx freq hi
        dc      userin          ;user sending rx freq mi
        dc      rxfset          ;user sending rx freq lo
        dc      txfset          ;user locking tx freq to rx freq
        dc      nothin          ;shouldn't be any more from user
        dc      nothin
        dc      nothin
        dc      nothin
        dc      nothin
        dc      nothin
        dc      nothin
        dc      nothin
        dc      nothin
        dc      nothin
        dc      nothin
lastY   =       *

        org    L:$1000           ;these are in external memory
monfil   dsm    16               ;interpolation filter for headphone output
decfil   dsm    decsize          ;decimation I/Q filters
filter   dsm    filsize          ;main receive I/Q filters

         org    X:
deccofs  dsm    decsize          ;triangular decimation filter (96db down at +/-500Hz)
coeffs   dsm    filsize

         org    X:deccofs
count    set     0
total    =       @cvf(decsize)*@cvf(decsize)/2
         dup     decsize
       if count<16
         dc      @cvf(2*count+1)/total
       else
         dc      @cvf(2*(decsize-count)-1)/total
       endif
count    set     count+1
       endm
lastX    =      *


         org    X:coeffs
PI       equ    3.14159265358979323846

s0       equ    0.5             ;DFT factors for main filter
s1       equ    1.15            ;>=64dB at >=31.25 Hz
s2       equ    0.7931
s3       equ    0.1567
s4       equ    0.00049
s5       equ    0.0005

time     =     -0.5*@cvf(filsize)+0.5
count    set    0
         dup    filsize
angle    =      2*PI*time/@cvf(filsize)
coeff    =
s0+s1*@cos(angle)+s2*@cos(2.0*angle)+s3*@cos(3.0*angle)+s4*@cos(4.0*angle)+s5*@cos(5.0*angle)
time     =      time+1.0
         dc     2*coeff/filsize
count    set    count+1
         endm

;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
```

68. Aw: [DSP:639] PSK31 issue

From: "Paulus" <paulstra@xs4all.nl>
Date: Fri, 29 Aug 1997 22:01:36 +0200
To: <dsp@tapr.org>
Message-ID: <199708292002.WAA28739@smtp1.xs4all.nl>
Rendered body type: text/plain

Hello Dough,

Yes I fear that the leonid did it hi.

It should work ok when loading psk31.cld the normal way via the evm56k
without an bios.cdl, and I am running it in win95 dosbox full screen.

I had some trouble though with the psk31 for the C-50 , which has sometimes
problems running in dosbox, so for that special occasion I go to real Dos ,
hi.

BTW: When the psk31 program for the C-50 works fine and is well documented
 written by G0TJZ, Andrew) it will be placed on the Tapr upload file
section.
Hope to do all test this weekend, better tomorrow, but if someone has no
patience at all hi , he/she can Email me and I send the program for the c-50
over.

For the Evm56 I made an little switch on the flash, so can turn the power
off to this Flashprom, and then off course it would not load the Evm56 when
power comes up , so can load via the normal way using the evm56k or evm56kW.
(takes much longer though).

Cheerio Dough, hope to work you on psk31/mt63 tonight or this weekend, but
pse listen round the 3.580 carrier for psk31 or mt63 signals.

QRV psk31: g3plx, g0tjz, g3ndo, g3fhl, oh/dk4zc, pa0ihd, pa0ocd

QRV mt63 : g3ndo, oh/dk4zc, pa0ihd, pa0ocd and growing hi

73 de Paul, pa0ocd

paulstra@xs4all.nl

September 1997

Original source file: dsp.9709
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9709

1. HF BPSK Progress

From: forrerj@peak.org (Johan Forrer)
Date: Mon, 01 Sep 1997 16:29:16 -0800
To: DSP@tapr.org, HFSIG@tapr.org
Message-ID: <199709012330.QAA28935@peak.org>
Rendered body type: text/plain

Hi all,

A few tidbits of news on the status of HF BPSK:

1) I have received a note from Peter, G3PLX, that EA2BAJ and EA2ARU (Jabi and Eduardo) joined the 7MHz PSK31. Congratulations - I know Eduardo and Jabi have been looking for a QSO for some time. Seems like the PSK31 activity keeps on growing in Europe.

2) Paul, PA0OCD, and Bill, VE2IQ had a transatlantic contact on 20 meters using Coherent (ET-1). The remarkable thing is that Paul managed this with an indoor loop antenna!

3) Bill, WB6RIJ and myself (KC7WW), had a very nice QSO on 30 meters using MT63 over a distance of about 1500 miles. We were really impressed that the copy was 100% even after I turned my power all the down as far as I could - probably a few milliwats. Bill was running only 2Watts. MT63 appears to have outstanding capabilities. Thanks to Pawel, SP9VRC, for this wonderful contribution.

If anyone is interested in joining in, 7081 (carrier) in the evenings is a good place to listen.

73's

--Johan

2. Coherent.

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 02 Sep 1997 08:44:24 -0800
To: DSP@tapr.org
Message-ID: <199709021545.IAA20140@peak.org>
Rendered body type: text/plain

Hi,

Thought I would pass on this tip from Izak, PA0IHD.

--Johan

>Posted-Date: Tue, 2 Sep 1997 11:31:20 +0200 (MET DST)
>Date: Tue, 02 Sep 1997 11:27:52 +0200
>From: Izak Davidse <pa0ihd@pi.net>
>Organization: Planet Internet
>To: Johan Forrer <forrerj@peak.org>
>Subject: Coherent.
>
>Hello Johan,
>
>Thank you for the EVM-Coherent interface.
>
>In my EVM the pll is contoled by one of this blue resonators. As you
>already said, the interface did not work.
>With a pick-up loop and the RX, I checked the frequeny of this
>resonator and found that it was oscillating on 3.975. After I adjusted
>the time-factor in the program accordingly, the coherent+EVM interface
>is giving a good print.
>The new timefactor is: 2500*(3975/4000)- 1.
>
>Perhaps this is an idea for those that want to give coherent a try
>but don't like to solder in the EVM?
>
>73 Izak.
>
>

3. TAPR EVM interface boards

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 02 Sep 1997 12:46:58 -0800
To: DSP@tapr.org, HFSIG@tapr.org
Message-ID: <199709021948.MAA02973@peak.org>
Rendered body type: text/plain

Hi All,

I have recently been getting a number of e-mails from enthusiasts asking about the proposed TAPR EVM interface kit - this is what I can tell you about it:

I am helping out with testing a prototype, which looks quite good. The kit consists of two small PCBs - one goes on the front panel and the other fits on the rear panel. Connections are made to the EVM using ribbon cable and a couple of soldered fly leads. You do not need to solder anything onto the EVM, there is an 16-pin IDC header that plugs into J7. The intention is to use the DSP-93 enclosure for which new silk-screened front/rear panels are provided.

This is basically all that I know at the moment - please direct further questions about availability and pricing to TAPR.

Thanks and 73's,

--Johan, KC7WW

4. EVM interface

From: "L. J. Shepherd" <ljs@west.net>
Date: Tue, 02 Sep 1997 22:23:04 -0700
To: dsp@tapr.org
Cc: wlake@silcom.com
Message-ID: <3.0.2.32.19970902222304.006907fc@west.net>
Rendered body type: text/plain

Hello Greg and Group:

I understand an interface for the evm has been prototyped.......any thoughts if and when a board might be available ? My coverage of the sig messages on this topic has been spotty lately due to some server problems at my ISP.......Johan mentioned that this effort is underway and I would like to add my name to the list of those interested in an evm interface.

Thanks......73, JIM   K6OYY TAPR 502

5. Re: [DSP:646] EVM interface

From: "Jim Lynch" <k4gvo@mindspring.com>
Date: Thu, 4 Sep 1997 10:10:04 +0000
To: dsp@tapr.org
Message-ID: <199709041410.KAA23195@brickbat8.mindspring.com>
Rendered body type: text/plain

Yep, me too. Put me on the list. Where and when do I send how much?
 I'll be glad to be a beta tester too.

Jim.
Jim Lynch   Fayetteville, GA   K4GVO
'86 GL1200I   k4gvo@mindspring.com   44.36.34.20

6. Re: [DSP:645] TAPR EVM interface boards

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Sat, 6 Sep 1997 12:35:47 -0500
To: dsp@tapr.org, "HF SIG list   mailing"<hfsig@tapr.org>
Message-ID: <v03110703b03744c35b1d@[208.134.134.40]>
Rendered body type: text/plain

>Hi All,
>
>I have recently been getting a number of e-mails from enthusiasts asking
>about the proposed TAPR EVM interface kit - this is what I can tell you
>about it:
>
>I am helping out with testing a prototype, which looks quite good. The kit
>consists of two small PCBs - one goes on the front panel and the other fits
>on the rear panel. Connections are made to the EVM using ribbon cable and a
>couple of soldered fly leads. You do not need to solder anything onto the

>EVM, there is an 16-pin IDC header that plugs into J7. The intention is to
>use the DSP-93 enclosure for which new silk-screened front/rear panels are
>provided.
>
>
>This is basically all that I know at the moment - please direct further
>questions about availability and pricing to TAPR.

I think that is about all we have at this point. We wilkl not have a date
or price until we get a little further along.

Cheers - Greg

Greg Jones, WD5IVD
Austin, Texas
wd5ivd@tapr.org
http://www.tapr.org/~wd5ivd

    "Before you become too entranced with gorgeous gadgets
     and mesmerizing video displays, let me remind you that
     information is not knowledge, knowledge is not wisdom,
     and wisdom is not foresight. Each grows out of the other
     and we need them all."   -Arthur C. Clarke

7. You're Invited - TMS320C6x DSP Systems Seminar

From: dspnews@dspnet.com (by way of Greg Jones, WD5IVD)
Date: Sun, 7 Sep 1997 00:25:12 -0500
To: " TAPR/AMSAT DSP "<dsp@tapr.org>
Message-ID: <v03110747b037eb2d7c2e@[208.134.134.40]>
Rendered body type: text/plain

You're invited to...

TMS320C6x DSP Systems Seminars

Monday, October 6th BWI Airport Marriott 1743 West Nursery Road Baltimore, MD	Tuesday, October 7th Sheraton Premiere Tysons Corner 8661 Leesburg Pike Vienna, VA
Thursday, October 9th Sheraton San Jose 1801 Barber Lane Milpitas, CA	Friday, October 10th LA Airport Marriott 5855 West Century Boulevard Los Angeles, CA
Tuesday, October 14th Doubletree Hotel Bellevue 300 112th Avenue SE Bellevue, WA	Wednesday, October 15th Sheraton Cavalier 2620 32nd Avenue NE Calgary, Alberta
Friday, October 17th Sheraton Ottawa Hotel 150 Albert Street Ottawa, Ontario	Monday, October 20th Harvey Plano Hotel 1600 North Central Expressway Dallas, TX

Tuesday, October 21st
The Chicago Downtown Marriott
540 North Michigan Avenue
Chicago, IL

You're invited to Spectrum Signal Processing's half day seminar
focusing on the many development issues associated with Texas
Instruments' new 1600 MIPS TMS320C6x DSP processor. At this free
seminar, presenters from Spectrum will step you through the design
challenges involved in developing a DSP system based on this powerful
new processor architecture.

   Agenda:

   Continental Breakfast
   'C6x Chip Architecture
   Spectrum's TMS320C6x Boards
   'C6x Software Discussion
   Design Issues, Applications & System-Level Solutions

Seats are limited at each seminar location, so reserve your spot soon.
To RSVP, fax or email your reply to Cathy Hallam or visit Spectrum's
web site at http://www.spectrumsignal.com.

Cathy Hallam@SpectrumSignal.com
phone: (604) 421-5422 or (800) 663-8986   fax: (604) 421-1764

****
REGISTRATION FORM (please fax or e-mail)

Name:
Company:
Address:
Phone:
Fax:
E-Mail:
Date of Seminar You Wish to Attend:
Applications:

( ) Yes, I will be attending

( ) No, I will not be attending. Please send me:

    ( ) Spectrum's 1998 Catalog on CD
    ( ) Seminar follow-up package
    ( ) Have a sales engineer phone me

8. Anti Logs

From: Charles Brain <chbrain@dircon.co.uk>
Date: Sun, 07 Sep 1997 08:27:53 +0100
To: dsp@tapr.org
Message-ID: <34125779.48294159@dircon.co.uk>
Rendered body type: text/plain

Hi,

After being directed to the sine program (thanks everyone). I am now looking for an
alog2 routine. I am already using a log2 program from Motorola's Dr Bubb but
I now need an alog2 program and Dr Bubb doesn't seem to have one.

Any Suggestions?

The log/alog forms part of the AGC 'circuit' in the LF radio I am building. So far
it can tune over the whole 3khz wide band and has pretty good un-wanted sideband
suppression (the analogue part is a DC receiver).

It has partial AGC in that I use the receive magnitude to feedback to the 22.5 db gain
block in the Crystal Semiconductors Codec. Currently it has a very fast attack and a
slow decay, all programmable. However the AGC range is still not large
enough hence the need for the alog2. The alog2 will provide a value to be applied
to a multiplier directly after the A/D to provide 'Digital Attenuation'.

The AGC circuit is simply an implementation of that described in Frerking.

- Charles

9. Re: [DSP:650] Anti Logs

From: Charles Brain <chbrain@dircon.co.uk>
Date: Sun, 07 Sep 1997 09:50:52 +0100
To: dsp@tapr.org
Message-ID: <34126AEC.7973F7EA@dircon.co.uk>
Rendered body type: text/plain

Charles Brain wrote:

> Hi,
>
> After being directed to the sine program (thanks everyone). I am now looking for an
> alog2 routine. I am already using a log2 program from Motorola's Dr Bubb but
> I now need an alog2 program and Dr Bubb doesn't seem to have one.
>
> Any Suggestions?
>

I found one on Dr Bubb, panic over!

- Charles G4GUO

10. Re: [DSP:650] Anti Logs

From: RLANIER@mailb.harris.com (RLANIER)
Date: Mon, 8 Sep 1997 08:50:23 -0400
To: dsp@tapr.org
Message-ID: <413f4410@mailb.harris.com>
Rendered body type: text/plain

Hi Charles,

     Could you explain what you mean by log/alog? How are you using this in
     your system? And why would you need an alog2 if your AGC range isn't
     large enough?

     Tony

_____ Reply Separator _____
Subject: [DSP:650] Anti Logs
Author: dsp@tapr.org at smtp
Date: 9/7/97 2:35 AM

Hi,

After being directed to the sine program (thanks everyone). I am now looking for
an
alog2 routine. I am already using a log2 program from Motorola's Dr Bubb but
I now need an alog2 program and Dr Bubb doesn't seem to have one.

Any Suggestions?

The log/alog forms part of the AGC 'circuit' in the LF radio I am building. So
fa
r
it can tune over the whole 3khz wide band and has pretty good un-wanted sideband
suppression (the analogue part is a DC receiver).

It has partial AGC in that I use the receive magnitude to feedback to the 22.5
db
 gain
block in the Crystal Semiconductors Codec. Currently it has a very fast attack
an
d a
slow decay, all programmable. However the AGC range is still not large
enough hence the need for the alog2. The alog2 will provide a value to be
applied

to a multiplier directly after the A/D to provide 'Digital Attenuation'.

The AGC circuit is simply an implementation of that described in Frerking.

- Charles

11. New Upload for EVM: dtmf.asm

From: dbraun@ichips.intel.com
Date: Tue, 09 Sep 1997 16:13:01 +0300
To: dsp@tapr.org
Message-ID: <199709091603.AA235991020@dtthp135.jf.intel.com>
Rendered body type: text/plain

Hello all,

I put together a handy program for the EVM: a DTMF (touch-tone) decoder.
It decodes the DTMF tones and sends the corresponding characters to
the serial port. It is based on a version from the Motorola Dr BuB
56000 software collection. (BTW, what does "Dr. BuB" mean?)

I uploaded dtmf.asm and dtmf.txt to ftp.tpar.org, in /tapr/SIG/dsp/upload.

By the way, I threw together this program so I could have a way
to remotely control my antenna rotator while I was up on the roof
messing with it. The system works like this:

1: I hit the DTMF keys on my HT while up on the roof.

2: My IC821 in the shack receives the signal and sends it to the EVM.

3: The DTMF program on the EVM decodes the tones and sends the data
   to PC via the serial port.

4: A program I wrote for the PC (Win95) translates the data into commands
   for the antenna and sends them (as network UDP packets) via an Ethernet
   cable to my HP Unix workstation.

5: A server program on the workstation receives the commands, translates
   them to motor on/off signals, which it sends out the workstation's printer
   port.

6: A relay box connected to the printer port actually operates the azimuth
   and elevation motors of the antenna system.

This sounds rather Rube Goldberg-ish, but it works well. The
network-based antenna server program is a good idea, because
different software on different machines can manipulate the
antennas thru it. (Actually, when I'm logged on to my Internet
service provider, my antennas are effectively "on the Internet").

If you are curious about any of this software (especially if you
have Unix or Linux in the shack), let me know and I can send a copy
of the source code to you.

Doug
SV/N1OWU

12. Re: [DSP:638] Re: Sound Card Packet Modems??

From: "(SV2AGW) George Rossopoylos" <sv2agw@the.forthnet.gr>
Date: Mon, 8 Sep 1997 12:35:47 +0300
To: <dsp@tapr.org>
Message-ID: <199709101346.QAA14115@nefeli.forthnet.gr>
Rendered body type: text/plain

Hi to all

Dear Bdale i search the ftp for LINUX but i didnt managed to find anything.
The problem is that they are ziped with the unix system utility. Can anyone
do this job for me??
I need the source files for SoundBlaster Modems for 1200/9600.
I have just finished the DRSI device driver (it works ok) and now i need to
write also a device driver for SoundBlaster. So far i wrote 2 device
drivers (Baycom and DRSI) what i inted to do is to support as many as
possible tncs with my Packet Engine.

Thanks in advance for the help
73
George Rossopoulos
e-mail:sv2agw@the.forthet.gr
packet:SV2AGW@SV2DXC.TSL.GRC.EU
http://www.forthnet.gr/sv2agw/
http://www.intranet.gr/isefi/rossopou/rossopou.htm

> From: Bdale Garbee <bdale@gag.com>
> To: dsp@tapr.org
> Subject: [DSP:638] Re: Sound Card Packet Modems??
> Date: Παρασκευή, 29 Αυγούστου 1997 12:16 μμ
>
> In article <199708290713.KAA00106@nefeli.forthnet.gr> you wrote:
>
> : But what i need now is source code for Sound card Packet Modems.
>
> Look in the Linux kernel source tree. Several sound card packet modems
are
> integrated in the current 2.1.X development kernels. The bits are
available
> from lots of ftp sites, ftp.kernel.org is the one I often go to.
>
> Bdale

13. Correct .obj files

From: Larry_Johnston@maroon.cudenver.edu (Larry Johnston)
Date: Wed, 10 Sep 1997 08:42:34 -0600
To: dsp@tapr.org
Message-ID: <msg6969.thr-7546e.4c5245@maroon.cudenver.edu>
Rendered body type: text/plain

I have an FT736 and a DSP93 with Paccomm DSP-93 TNC.

Which ".obj" files should be used for 1200bps, and which for 9600bps?

Larry, W0EIE

14. Re: [DSP:653] New Upload for EVM: dtmf.asm

From: Bdale Garbee <bdale@gag.com>
Date: Wed, 10 Sep 1997 12:24:52 -0600
To: dsp@tapr.org
Message-ID: <199709101824.MAA00357@chunks.gag.com>
Rendered body type: text/plain

In article <199709091603.AA235991020@dtthp135.jf.intel.com> you wrote:

: If you are curious about any of this software (especially if you
: have Unix or Linux in the shack), let me know and I can send a copy
: of the source code to you.

I'm very interested in your antenna control server and the details of your parallel port to rotor control interface... sounds neat!

Bdale, N3EUA

15. New PSK31 from G3PLX uploaded

From: forrerj@peak.org (Johan Forrer)
Date: Thu, 11 Sep 1997 12:56:17 -0800
To: HFSIG@tapr.org, DSP@tapr.org
Message-ID: <199709111957.MAA25789@peak.org>
Rendered body type: text/plain

Hi all,

I have uploaded the latest release of the G3PLX PSK31 code package to the DSP\recent_uploads directory. Look for PSK312.ZIP.

This package contains some very readable and informative technical text on HF PSK that I would recommend studying. Otherwise, note that you should not mix this code with previous releases of PSK31 - keep these seperate as these are not interchangeable!

Thanks to Peter for this contribution - have fun and let us have some reports on what you think.

73's

--Johan

PS. Tim (AA5DF), could you kindly move the code package from "upload" to "recent_uploads". Thanks much. J.

16. PSK312.ZIP Move to Uploads

From: "L. J. Shepherd" <ljs@west.net>
Date: Sat, 13 Sep 1997 00:14:36 -0700
To: dsp@tapr.org
Message-ID: <3.0.2.32.19970913001436.006910fc@west.net>
Rendered body type: text/plain

Hello Tim AA5DF and Group:

Wonder if it would be possible please to move Johan's recent upload "PSK312.zip" to the TAPR Uploads section of the ftp area.....weekend is a good time to work with some new software and Saturday evening is free at the moment.

Thanks very much ! JIM K6OYY TAPR 502

17. TI Satellite Seminars

From: dspnews@dspnet.com (by way of Greg Jones, Wd5IVD)
Date: Sat, 13 Sep 1997 09:38:20 -0500 (CDT)
To: dsp@tapr.org
Message-ID: <l03102804b0400fb0695a@[206.133.248.24]>
Rendered body type: text/plain

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****

REGISTER TODAY: 800/477-8924 x3311 or http://www.ti.com/sc/dspseminar
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Two different interactive seminars will be delivered by Texas Instruments DSP
product group throughout North America on September 24th and October 8th.
These interactive satellite seminars will identify product features and
application information on two of the industry's highest-performance DSPs: the
TMS32C54x and TMS320C6x.

If you've attended a previous TI Satellite Seminar, you know what an efficient
use of time these are and how valuable the technical content is. If you
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****
* TMS320C6x PRODUCT SEMINAR - September 24 *
****

In just 3 hours, the SEPTEMBER 24th seminar will focus on the 'C6x...its
architecture, features, performance, tools and how you can get started
designing with the world's most revolutionary DSP!

YOU SHOULD ATTEND ON SEPTEMBER 24th IF....
* You're building a multi-channel, multi-function application
  that needs at least 100 MIPs or up to an incredible 1600-MIPs
  of performance!

* You are considering ASIC's or multi-DSP implementation

* You have already heard about the 'C6x and it's incredible
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BY ATTENDING ON SEPTEMBER 24th, YOU'LL LEARN THE FOLLOWING:
* The 'C6x revolutionary 'c6x advanced very long instruction word (VLIW)
  architecture, which delivers up to 1600 Million Instructions Per Second
(MIPs)

* Unique features of the innovative PC-based development platform
  for the 'C6x

* How the industry's most efficient C Compiler and only
  assembly optimzer slashes cost and development time

* How the 'C6x is redefining design potential in two application examples

****
* TMS320C6x & TMS320C54x APPLICATION SEMINAR - October 8 *
****

The 3-hour October 8th Satellite Seminar will focus on application examples and
implementation recommendations for using either the 'C6x and/or 'C54x. It will
also include a brief overview of the architecture and features of these two
high-performance DSPs.

YOU SHOULD ATTEND ON OCTOBER 8th IF....
* You're already familiar with the 'C54x and 'C6x DSPs but need
  to know which one is right for your application

* You are considering ASIC's or multi-DSP implementation

* You have some DSP evaluation or design experience and want to
  know more

* You want to learn how your application can benefit from the
  latest in high-performance DSP

BY ATTENDING ON OCTOBER 8th, YOU'LL LEARN THE FOLLOWING:
* The commonalities and differences between 'C54x and 'C6x

* How to determine which device best optimizes your system

* How TI development tools make design easier

* How to optimize code

* Specific application examples of how each device was implemented
  in three separate systems

****
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****

Seminars will be held in various locations. Call 800/477-8924 x3311 for the
location in your city. Cost for each seminar is $25.

18. PCB Programs

From: Charles Brain <chbrain@dircon.co.uk>
Date: Tue, 16 Sep 1997 09:41:06 +0100
To: "dsp@tapr.org" <dsp@tapr.org>
Message-ID: <341E4622.C3724E8C@dircon.co.uk>
Rendered body type: text/plain

Hello,

Does anyone know of a IBM P.C program for producing PCBs. What
I am looking for is a program that can produce a mask on
a HP Laserjet 5P.
There are a large number of programs about and I am looking for a
recomendation i.e one that someone has used sucessfully.

After the success of my DSP based 73Khz radio I am looking at doing
a DSP based IF demodulator. Hence the need for the PCB as I need
to add an external sample and hold circuit etc to connect to the EVM.

I believe that if I use an external sample and hold circuit synced to
the FSYNC signal on the codec, a 44.1 Khz sample rate and a 455khz
IF I can bandpass sample without aliasing as the IF falls inbetween
multiples of half the sample rate ie 20 * 22.05 = 441Khz and
21 * 22.05 = 463.05. Which allows room for the filter shape factor.

I am also looking for a source of 455 IF filters. So far I have found the
Kiwa ones, they do an 8Khz wide one for $70.

- Charles G4GUO

19. Re: [DSP:660] PCB Programs

From: Lyle Johnson <lylej@azstarnet.com>
Date: Tue, 16 Sep 1997 07:13:51 -0700
To: dsp@tapr.org
Message-ID: <3.0.3.32.19970916071351.00771e10@pop.azstarnet.com>
Rendered body type: text/plain

Charles,

If you are happy using DOS< then go to the PROTEL website (www.protel.com)
and you will find "EASYTRAX" (or some similar name). This is an obsolete
but useful program. I havo experience with it.

If you are using Windows, then go to www.ivex.com and you will find a
capable PCB (and schematic) program. I don't use the schematic program,
but have used the PCB program to produce boards. It comes for FREE limited
to 100 pins. For various amounts of money (ranging from $29 to $450 USD)
you can get increasing pin limits, up to "unlimited."

If you've got money burning a hole in your pocket, go to www.orcad.com and
for about $14,000 USD you can get a good schematic capture and PCB layout
program. I have used these as well.

One warning, all of thes eprograms seem to have some sort of bugs, they get
worse the more complicated the board. The IVEX products seem to do just
fine for simple boards. I've not it for anything more complex than half a
dozen ICs for a microcontroller-based remote display system. OrCAD, on the
other hand, was used for the RUDAK experiement on P3D, along with th eiHU,
IOUnit, EPU, momentum wheels, etc.

Enjoy!

Lyle

At 03:46 AM 9/16/97 -0500, Charles Brain wrote:
>Hello,
>
>Does anyone know of a IBM P.C program for producing PCBs. What
>I am looking for is a program that can produce a mask on
>a HP Laserjet 5P.
>There are a large number of programs about and I am looking for a
>recomendation i.e one that someone has used sucessfully.
>
>After the success of my DSP based 73Khz radio I am looking at doing
>a DSP based IF demodulator. Hence the need for the PCB as I need
>to add an external sample and hold circuit etc to connect to the EVM.
>
>I believe that if I use an external sample and hold circuit synced to
>the FSYNC signal on the codec, a 44.1 Khz sample rate and a 455khz
>IF I can bandpass sample without aliasing as the IF falls inbetween
>multiples of half the sample rate ie 20 * 22.05 = 441Khz and
>21 * 22.05 = 463.05. Which allows room for the filter shape factor.
>
>I am also looking for a source of 455 IF filters. So far I have found the
>Kiwa ones, they do an 8Khz wide one for $70.
>
>- Charles G4GUO
>
>

20. Re: [DSP:660] PCB Programs

From: Bdale Garbee <bdale@gag.com>
Date: Tue, 16 Sep 1997 16:01:06 -0600
To: dsp@tapr.org
Message-ID: <199709162201.QAA26566@chunks.gag.com>
Rendered body type: text/plain

In article <341E4622.C3724E8C@dircon.co.uk> you wrote:

: Does anyone know of a IBM P.C program for producing PCBs.

In addition to Lyle's suggestions, I would add that the Eagle tools from
Cadsoft are my current favorites in the for-a-reasonable-amount-of-money
category. Good tools, excellant support, fair prices for upgrades. There's
a pretty good tour of the tools on their website:

        www.cadsoft.de
   or   www.cadsoftusa.com

Now, if they'd just do a version for Linux.... :-)

Bdale, N3EUA

21. Re: [DSP:660] PCB Programs

From: Jeff King <jeff@mich.com>
Date: Tue, 16 Sep 1997 22:17:29 -0400
To: dsp@tapr.org
Message-ID: <3.0.3.32.19970916221729.00844100@mail.mich.com>
Rendered body type: text/plain

At 03:46 AM 9/16/97 -0500, Charles Brain wrote:
>Hello,
>
>Does anyone know of a IBM P.C program for producing PCBs. What
>I am looking for is a program that can produce a mask on
>a HP Laserjet 5P.

Its not worth your time... I'm assuming you want to etch your own
board. Take a look at http://www.apcircuits.com   I use them now for all
my quick turn boards, great work, fast turnaround and can't beat
the price. I got 40 double-sided, plated holes, 1.5 x 1.5" boards
from them in two day turn around for less then $100 including
tooling charges. I don't use them for my production, but do use
them for all my prototyping.

>There are a large number of programs about and I am looking for a
>recomendation i.e one that someone has used sucessfully.

I've used P-CAD, Tango, Orcad (own it), McCad and Mentor Graphics.
The DOS version of ORCAD is what I have, and it works OK for what
I do. I think its around $3000 for SCH and PCB.

Regards,

```
-----------------------------------
| Jeff King      Aero Data Systems |
| jeff@mich.com  P.O. Box 510895   |
| (810)471-1787  Livonia, MI 48151 |
|F(810)471-0279  United States     |
-----------------------------------
```

22. Re: [DSP:660] PCB Programs

From: John Scott <kd4vhg@radio.org>
Date: Wed, 17 Sep 1997 08:31:46 -0400
To: dsp@tapr.org
Message-ID: <341FCDB2.5531@radio.org>
Rendered body type: text/plain

Hi Charles,

Try looking at http://www.ivex.com/ this is a good looking package
that lets you try out a pin limited version of the Schem editor and
PCB layout program.

-John Scott
kd4vhg

23. Re: [DSP:663] Re: PCB Programs

From: rocketman@basinlink.com
Date: Wed, 17 Sep 1997 11:09:06 +0000
To: dsp@tapr.org
Cc: addult@usa.net
Message-ID: <199709171613.LAA23031@tapr.org>
Rendered body type: text/plain

I am running Zuken-Redac's Cadstar for Windows. It costs about $3,500 or so
and it has a humongous capacity for total pin count, board size, and supports
easily created new component footprints. I have used it to lay out fairly
involved microprocessor boards with everything from regular 0.1 center DIP
packages to VQFP fine pitched surface mount components on both sides of the
board.

I've done quite a bit of mixed signal work on it as well - most recently a
long range infrared data link that combines stuff intended for 4 mbps IRDA
and a radio receiver on a chip. And I've done some things with the PIC
processors running at about 20 mhz, some PLL tuner circuits in the 800/900
mhz band, and a RF test widget that a trained monkey can plug a data radio in
and write down what LEDs light up to troubleshoot it without having to know
how to work the Ramsey communications monitor.

But my company paid for the thing - it requires a "dongle" - someone swears
they have a crack for it but I haven't seen it. The dongle is the only
Achilles heel of the package - it looks like a Sentinel key - has some kind
of FPLD logic in it - maybe it's time to design a logic analyzer interface to
tap into the parallel port signals and crack it myself to build a backup?

To do circuit boards right, IMHO, one really needs a professional board
layout package and to send the files to a board shop for fabrication - when
you factor in what your time is worth, and the cost of the components you are
stuffing on the board at risk, the tooling and fabrication costs are CHEAP,
CHEAP, CHEAP.

> At 03:46 AM 9/16/97 -0500, Charles Brain wrote:
> >Hello,
> >
> >Does anyone know of a IBM P.C program for producing PCBs. What
> >I am looking for is a program that can produce a mask on
> >a HP Laserjet 5P.
>
> Its not worth your time... I'm assuming you want to etch your own
> board. Take a look at http://www.apcircuits.com I use them now for all
> my quick turn boards, great work, fast turnaround and can't beat
> the price. I got 40 double-sided, plated holes, 1.5 x 1.5" boards
> from them in two day turn around for less then $100 including
> tooling charges. I don't use them for my production, but do use
> them for all my prototyping.
>
> >There are a large number of programs about and I am looking for a
> >recomendation i.e one that someone has used sucessfully.

>
> I've used P-CAD, Tango, Orcad (own it), McCad and Mentor Graphics.
> The DOS version of ORCAD is what I have, and it works OK for what
> I do. I think its around $3000 for SCH and PCB.

```
|  -73- de N5PSP  - Alton                                                  |
|  Refuse to have Excuses. Refuse to be Negative. Refuse to Whine.         |
|  Refuse to accept Failure. Refuse to accept Defeat. Refuse to Give Up.   |
|  Refuse to Settle For.  REFUSE to LOSE                                   |
 --------------------------------------------------------------------------
```

24. Re: [DSP:660] PCB Programs

From: Bruno Giraldo <bgiraldo@intercity.it>
Date: Wed, 17 Sep 1997 21:35:01 +0100
To: dsp@tapr.org
Message-ID: <3.0.1.16.19970917213501.25874740@intercity.it>
Rendered body type: text/plain

At 03:46 16/09/97 -0500, you wrote:
>Hello,
>
>Does anyone know of a IBM P.C program for producing PCBs. What
>I am looking for is a program that can produce a mask on
>a HP Laserjet 5P.
>There are a large number of programs about and I am looking for a
>recomendation i.e one that someone has used sucessfully.
>
>After the success of my DSP based 73Khz radio I am looking at doing
>a DSP based IF demodulator. Hence the need for the PCB as I need
>to add an external sample and hold circuit etc to connect to the EVM.
>
>I believe that if I use an external sample and hold circuit synced to
>the FSYNC signal on the codec, a 44.1 Khz sample rate and a 455khz
>IF I can bandpass sample without aliasing as the IF falls inbetween
>multiples of half the sample rate ie 20 * 22.05 = 441Khz and
>21 * 22.05 = 463.05. Which allows room for the filter shape factor.
>
>I am also looking for a source of 455 IF filters. So far I have found the
>Kiwa ones, they do an 8Khz wide one for $70.
>
>- Charles G4GUO
>
>

Hi Charles, I've used a program call Arianna, It is quiet simple and
versatile.
If you like I will send to you via e-mail (is only 1M).

                        73 de i3vu, Bruno

25. Re: [DSP:663] Re: PCB Programs

From: Paul A Beltrani <beltrani@hawaii.edu>
Date: Wed, 17 Sep 1997 10:00:54 -1000
To: dsp@tapr.org
Message-ID: <Pine.GSO.3.95q.970917095225.25209A-100000@uhunix4>
Rendered body type: text/plain

On Tue, 16 Sep 1997, Jeff King wrote:

> At 03:46 AM 9/16/97 -0500, Charles Brain wrote:
> >
> >Does anyone know of a IBM P.C program for producing PCBs. What
> >I am looking for is a program that can produce a mask on
> >a HP Laserjet 5P.
>
> Its not worth your time... I'm assuming you want to etch your own
> board. Take a look at http://www.apcircuits.com   I use them now for all
> my quick turn boards, great work, fast turnaround and can't beat
> the price. I got 40 double-sided, plated holes, 1.5 x 1.5" boards
> from them in two day turn around for less then $100 including
> tooling charges. I don't use them for my production, but do use
> them for all my prototyping.
>
> >There are a large number of programs about and I am looking for a
> >recomendation i.e one that someone has used sucessfully.

Someone recommended protel's easytrax (spelling?). I have used it to
create small 2 layerB PCB's for amateur use. It has the ability to print
the mirror image of your design print the mirror image to allow you to do

the laser print & iron etch mask technique.

 - Paul Beltrani

26. Re: [DSP:657] New PSK31 from G3PLX uploaded

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Wed, 17 Sep 97 11:28:10 CDT
To: dsp@tapr.org
Message-ID: <9709171628.AA12934@aa5df.sps.mot.com>
Rendered body type: text/plain

> I have uploaded the latest release of the G3PLX PSK31 code package to the
> DSP\recent_uploads directory. Look for PSK312.ZIP.

Hi all,

I have performed the move and permissions change. Sorry for the delays
- I was in Albuquerque for several days out of E-range. Right now I'm
trying to recover from the bachelor party.

73
Tim

27. Re: [DSP:656] Re: New Upload for EVM: dtmf.asm

From: dbraun@ichips.intel.com
Date: Fri, 19 Sep 1997 12:08:33 +0300
To: dsp@tapr.org
Message-ID: <199709190919.AA115870769@dtthp135.jf.intel.com>
Rendered body type: text/plain

[Empty message body]

28. DSP demodulation at IF

From: bsmeds@esoc.esa.de
Date: Fri, 19 Sep 1997 13:17:20 +0200
To: DSP@tapr.org
Cc: chbrain@dircon.co.uk
Message-ID: <C1256517.00380528.00@esocmail1.esoc.esa.de>
Rendered body type: text/plain

97-09-16 10:46 Charles G4GUO wrote:
<
<After the success of my DSP based 73Khz radio I am looking at doing
<a DSP based IF demodulator. Hence the need for the PCB as I need
<to add an external sample and hold circuit etc to connect to the EVM.
<
<I believe that if I use an external sample and hold circuit synced to
<the FSYNC signal on the codec, a 44.1 Khz sample rate and a 455khz
<IF I can bandpass sample without aliasing as the IF falls inbetween
<multiples of half the sample rate ie 20 * 22.05 = 441Khz and
<21 * 22.05 = 463.05. Which allows room for the filter shape factor.
<
<I am also looking for a source of 455 IF filters. So far I have found the
Kiwa ones, they do an 8Khz <wide one for $70.

This looks to be an interesting proposal.
Has anything been published about the 73 kHz radio?

The EVM card I have will not produce a 44.1 kHz sampling with the X-tal
supplied.
The 48 kHz sampling would not be so good for the 455 kHz IF.
Maybe we can add the second X-tal to get a sampling of 455/9.25 = 49.189
kHz.
The IF filter could be rather wide +- 20 kHz as long as it rejects the
signal outside 455 +- 24.5 kHz.
Has anybody tested the Line-in input to see if it could be used directly
for undersampling.
(The other inputs are already low pass filtered.)
In this case the sample and hold circuit could be dropped.
What levels can we expect from the radio IF? Is there a need for extra
amplification?

Boris Smeds DJ0EX, SM0GJ

29. MMX-aware assembler

From: Alberto di Bene <xdibene@usa.netx>
Date: Fri, 19 Sep 1997 17:05:12 +0200

To: dsp@tapr.org
Message-ID: <342294A8.D7B922BA@usa.net>
Rendered body type: text/plain

Does anybody know about the existence of an assembler for the Pentium
MMX ?
Preferrably PD or shareware. I would like to code low-level routines for
signal processing directly in assembler taking advantage of the MMX,
but my current assembler doesn't support them.

Thanks and 73,
Alberto di Bene, I2PHD
[Attachment: smime.p7s; application/x-pkcs7-signature; 4,241 bytes]

30. Re: [DSP:671] MMX-aware assembler

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 19 Sep 1997 09:01:36 -0800
To: dsp@tapr.org
Message-ID: <199709191602.JAA28899@peak.org>
Rendered body type: text/plain

Hello Alberto,

I was doing some inquiries about this a little while ago. Things are a
little sketchy, but here is what I found. If anyone can add to this list, or
help out to get us pointed in the right direction, I certainly would
appreciate it.

1) The Intel web site contains the definitive source of information for MMX.
This includes the manual, coding examples, and most important, a set of
macros that you need for assembly of MMX instructions. They have a utility
that allows viewing of the MMX registers, which is essential for doing any
MMX-related work. There apparently is a handbook written for internal use
within Intel that is excellent - I have not found out much further about
this document. If you have contacts within Intel that may help locate this
source.

2) Also have a look at the AMD web site regarding the K6, which has MMX as well.

3) MS VC++5.0 has the ability to include MMX instructions - however, from
experts that used it, I have heard that there is a problem returning the FP
unit to its normal operation as using MMX. You can live with it if you are
aware of the problem (not a bug but a feature :-))

3) MASM 6.11C (or perhaps later) will get you started. Perhaps you may need
the MMX macros mentioned in (1). If you have access to the MS Developer's
CDs, you have that already.

4) Watcom C/C++ 11.0 has very nice MMX support, including debugging.

5) The NuMega debugger also has very nice MMX support. You should be using
this product if you have any serious intentions on working at this level.

So, I guess it depends which of the above you have access to. Programming
the Pentium/MMX for efficient DSP work, depends greatly on pipeline
optimisation. This is not an easy or obvious task to do by hand by a
programmer, however, there are some Pentium optimization tools available
that may help. You can read about this in Michael Schmit's book "Pentium
Processor Optimization Tools" publ. by AP Professional (ISBN 0-12-627230-1).
The book by itself is a little dissapointing, but there is little else that
I can recommend at this point in time.

As you may have guessed, this platform has become more than a curiosty for me.

Good luck!

--Johan, KC7WW

>Does anybody know about the existence of an assembler for the Pentium
>MMX ?
>Preferrably PD or shareware. I would like to code low-level routines for
>signal processing directly in assembler taking advantage of the MMX,
>but my current assembler doesn't support them.
>
>Thanks and 73,
>Alberto di Bene, I2PHD
>Content-Type: application/x-pkcs7-signature; name="smime.p7s"

>Content-Disposition: attachment; filename="smime.p7s"
>Content-Description: S/MIME Cryptographic Signature
>
>Attachment Converted: C:\HIGHWAY\MAIL3\smime.p7s
>

31. Re: [DSP:638] Re: Sound Card Packet Modems??

From: gerhard@ats.xs4all.nl (Gerhard Ahuis)
Date: 20 Sep 1997 12:25:21 +0200
To: dsp@tapr.org
Message-ID: <6008ah$mtm@ats.xs4all.nl>
Rendered body type: text/plain

bdale@gag.com (Bdale Garbee) writes:

>In article <199708290713.KAA00106@nefeli.forthnet.gr> you wrote:

>: But what i need now is source code for Sound card Packet Modems.

>Look in the Linux kernel source tree. Several sound card packet modems are
>integrated in the current 2.1.X development kernels. The bits are available
>from lots of ftp sites, ftp.kernel.org is the one I often go to.

Why not use Linux instead of Win95, better, faster, more stable...

Gerhard.
--
Gerhard Ahuis   JO32EO   It's good to be independent
  pe1rlz@amsat.org   145,550 MHz   Linux the Ultimate HAM OS

Unsolicited advertisements subject to $1000 consulting fee.

32. Re: [DSP:660] PCB Programs

From: Charles Brain <chbrain@dircon.co.uk>
Date: Sun, 21 Sep 1997 08:56:09 +0100
To: dsp@tapr.org
Message-ID: <3424D319.AEEAD996@dircon.co.uk>
Rendered body type: text/plain

Charles Brain wrote:

> Hello,
>
> Does anyone know of a IBM P.C program for producing PCBs. What
> I am looking for is a program that can produce a mask on

Thanks everyone for your advice.

- Charles G4GUO

33. WTB: DSP-93

From: forrerj@peak.org (Johan Forrer)
Date: Mon, 22 Sep 1997 08:20:38 -0800
To: DSP@tapr.org, HFSIG@tapr.org
Message-ID: <199709221522.IAA02559@peak.org>
Rendered body type: text/plain

Hi,

I require a DSP-93 (or two) for a project and would be interested in
purchasing a used DSP-93 or unassembled kit.

If anyone considers selling his DSP-93 that is in perfect working order, or
still in unassembled form, please e-mail me directly and state condition and
price. I would prefer offers from within the USA in order to avoid shipping
and customs issues.

Thank you much in advance for your help.

--Johan Forrer
(forrerj@peak.org)

34. TMS320C50 version for PSK31

From: forrerj@peak.org (Johan Forrer)
Date: Mon, 22 Sep 1997 09:46:04 -0800
To: DSP@tapr.org, HFSIG@tapr.org
Message-ID: <199709221647.JAA16577@peak.org>
Rendered body type: text/plain

Hi,

I have uploaded Andrew's, G0TJZ, version of PSK31 for the TI320C50 DSK to
the DSP file area. It will be available in the "recent_uploads" directory as
soon as Tim has moved it.

Thanks to Andrew for this contribution. This came via Paul, PA0OCD. Thanks Paul.

73's

--Johan, KC7WW

35. Re: WTB: DSP-93

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 23 Sep 1997 10:21:25 -0800
To: HFSIG@tapr.org, DSP@tapr.org
Message-ID: <199709231722.KAA25342@peak.org>
Rendered body type: text/plain

Hi,

Thank you all for the response for help that I recieved - I now have all the
units that I need.

73's

--Johan

36. Schematic Lib for 56002 DSP

From: Michael Payne <mpayne@IO.com>
Date: Tue, 23 Sep 1997 17:51:31 -0500
To: DSP List <dsp@tapr.org>
Message-ID: <342847F3.36C553F9@io.com>
Rendered body type: text/plain

I've been searching high and low for a schematic library with a DSP56002
in a TQFP package. I'm not sure which schematic capture package I'm
going to use, but I'll take any library I can get and do my best to port
it over. This is a personal project so I don't have the $$$ to buy
expensive software. Are there any public domain places that might have
such a library? I've already checked with Motorola's DSP help as well
as Protel and OrCad's WEB pages. I've had no luck and I really don't
want to enter the 144 TQFP pin out on my own. Anyone have any ideas?

Thanks
Mike Payne
mpayne@io.com

37. (no subject)

From: John W Gould <g3wkl@pagnell.demon.co.uk>
Date: Tue, 30 Sep 1997 14:47:52 +0100
To: dsp@tapr.org
Message-ID: <KGFShMAIMQM0EwJw@pagnell.demon.co.uk>
Rendered body type: text/plain

subscribe

38. Re: [DSP:671] MMX-aware assembler

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Tue, 30 Sep 1997 17:13:51 +0200
To: dsp@tapr.org
Message-ID: <3431172F.7D58@ife.ee.ethz.ch>
Rendered body type: text/plain

Alberto di Bene wrote:
>
> Does anybody know about the existence of an assembler for the Pentium
> MMX ?
> Preferrably PD or shareware. I would like to code low-level routines for
> signal processing directly in assembler taking advantage of the MMX,
> but my current assembler doesn't support them.

binutils-2.8.1 (available from any GNU mirror) supports MMX.

73s
Tom

39. 1997 ARRL and TAPR DCC Reminder

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Tue, 30 Sep 1997 15:15:53 -0500
To: " TAPR/AMSAT DSP "<dsp@tapr.org>, " Spread Spectrum "<ss@tapr.org>,
"HF SIG list mailing"<hfsig@tapr.org>,
"NETSIG list mailing"<netsig@tapr.org>,
"TAPR APRS SIG"<aprssig@tapr.org>, " MIC-E Beta "<mic-e@tapr.org>,
" tacgps "<tacgps@tapr.org>
Message-ID: <v03110717b0570c981bd4@[208.134.134.40]>
Rendered body type: text/plain

Don't forget that the 16th Annual ARRL and TAPR Digital Communications Conference is in just a few days!

It is not to late to make the conference. Registration is already at a high and we expect a really great conference! Hope to see you in Baltimore.

1997 ARRL and TAPR Digital Communications Conference
October 10-12, 1997
Baltimore, Maryland (minutes from BWI airport)

Main Web Page -- http://www.tapr.org/dcc
Tentative Schedule -- http://www.tapr.org/tapr/html/dcc97schedule.html
Proceedings Abstracts -- http://www.tapr.org/tapr/html/cnc16.html
Local Attractions -- http://www.tapr.org/tapr/html/dcc97_attractions.html

---

The 1997 ARRL and TAPR Digital Communications Conference will be held on October 10-12, 1997 in Baltimore, Maryland. This years conference location is just minutes away from the BWI Airport.

What can you expect during the 1997 ARRL and TAPR Digital Communications Conference ?
* A full day of papers and breakouts on Saturday for the beginner to the advanced amateur digital enthusiast.

* Three workshops
o Friday (1pm - 8pm) - APRS Symposium (http://www.aprs.net/dcc/)
o Friday (4pm - 8pm) - Seminar on RF Basics for Computer Weenies
o Sunday (8:30am - 1:30pm) - Seminar on Spread Spectrum system Design and Theory

* The second annual Student paper session.

* A banquet with a Special Guest Speaker Yutaka Sakurai, JF1LZQ who is Vice President of Japan's Packet Radio User's Group (PRUG). His talk is entitled, "Japan's PRUG: A look at its history and a view to the future". He will discuss the history of the PRUG from its early beginnings in the mid-80's and track its development to today. He will also discuss some of PRUG's current projects and its goals for the future.

* SIGs (Special Interest Groups) on Saturday following the banquet.

* Informal get-togethers throughout the weekend.

* TAPR Membership Meeting

Special Symposiums/Seminars

In addition to the presentation of papers on Saturday, three symposiums/seminars will be held before and after the conference. These sessions are provided to allow those with additional time and interest to make the most of the Digital Communications Conference. For those that might have interest in just a symposium or seminar, registration for the conference is not necessary to register and attend one or more of the symposiums and seminars. This allows maximum flexibility for those that might want to participate during the Digital Communications Conference, but do not have an entire weekend to devote to the event.

A full day symposium on Friday covering APRS will be conducted by Bob Bruninga, WB4APR (father of APRS) Keith Sproul, WU2Z, Mark Sproul, KB2ICI (developers of Mac and Windows APRS), Steve Dimse, K4HG (developer of javAPRS), and other nationally known APRS leaders. Join this group for the afternoon and evening for in depth discussions and presentations on the current and future status of APRS. This is an unique opportunity to gain insight into this fast growing digital aspect of amateur operations that combines computers, packet radio, and GPS (Global Positioning System). See

http://www.aprs.net/dcc/ for schedule.

Starting late Friday afternoon a half-day seminar entitled "RF Basics for Computer Weenies: Helping the RF-challenged get the most out of the new high-speed wireless toys" presented by Mike Cheponis, K3MC. The seminar will focus on such topic as basic antenna types and their characteristics, comparison of feedlines and connector types, propagation basics (calculation of path loss, multipath effects, fresnel zones, etc), weatherproofing, lightning protection, filters, basic RF measurements, and other issues related to maintaining radio equipment on the UHF/SHF bands. This seminar will be starting late enough in the afternoon on Friday to allow those flying on that day to attend the seminar.

On Sunday morning, Dewayne Hendricks, WA8DZP, Phil Karn, KA9Q, and Tom McDermott, N5EG, will conduct a seminar focusing on "Spread Spectrum System Design and Theory." All three presenters are well known for their work in various areas of amateur digital communications and this 5 hour seminar should be an excellent opportunity to learn about the design and theory of spread spectrum systems. This seminar is a follow up to the past two seminars of PCS technology by Dewayne with a new focus on system design.

Airports

* The closest airport is Balitmore/Washington International (BWI)
* For those flying internationally or located on the East coast, check flights into
    - o Dulles International or
    - o Washington National Airport
* Bus/rail service from either Dulles or Washington to BWI is available, but be sure to check on this before arriving.

Hotel Information

Conference presentations, meetings, and workshops will be held at the Holiday Inn BWI Airport. DCC special rooms rates are $89 per night. When making reservations with the hotel, be sure to indicate you are attending the ARRL and TAPR DCC conference. The hotel provides transportation to and from BWI Airport, Amtrak/MARC rail station, and the local Baltimore Light Rail. You should contact the hotel to arrange transportation.

Holiday Inn BWI Airport (conference hotel)
890 Elkridge Landing Rd, Linthicum, MD, 21090
(410) 859-8400, Fax (410) 684-6778

3912.00N and 07641.34W

Directions to Conference

Coming from Baltimore Metro Area:
Follow MD-295 SOUTH towards BWI airport
Take W. NURSERY Rd exit
LEFT at the list at the end of the exit
RIGHT at the 3rd light, WINERSON Rd
LEFT at the 1st light, ELKRIDGE LANDING Rd
Holiday Inn BWI will be 1/2 mile on right.

Coming from Annapolis:
Follow I-97 NORTH/RT. 3 NORTH
Take DORSEY Rd Exit (rt 176 West)
RIGHT onto AVIATION Blvd (Rt 162)
Pass BWI Satellite parking
Follow signs to BWI Airport
RIGHT onto ELKRIDGE LANDING Rd
Holiday Inn BWI will be 1/2 mile on left.

Coming from Washington, DC:
Follow I-95 NORTH or MD-295 NORTH towards Baltimore
Take I-195 EAST towards BWI airport
Take EXIT 1A (Rt. 170 North)
LEFT at 2nd light, ELKRIDGE LANDING Rd
Holiday Inn BWI will be 1/2 mile on left.

Coming from the North:

Follow I-95 SOUTH or NEW JERSEY TURNPIKE SOUTH to I-95 South
Take I-95 SOUTH to I-195 EAST/AIRPORT to
Rt. 170 NORTH LINTHICUM to 2nd light,
turn left onto ELKRIDGE LANDING Rd
Holiday Inn BWI will be 1 mile on left.

Local Repeater Talk-In
Maryland FM Association WA3DZD repeater network has given premission to use their system for the talk-in on Saturday morning, October 11, 1997 and for use during the conference weekend. The frequecies are:

* 146.76 out, 146.16 in
* 224.76 out, 223.16 in
* 444.00 out, 449.00 in

The talk-in station will be using the call sign W3NSA.

Many thanks to the Maryland FM Association.

Tucson Amateur Packet Radio
8987-309 E Tanque Verde Rd #337 * Tucson, Az * 85749-9399 * 940-383-0000
e-mail: tapr@tapr.org ftp: ftp.tapr.org web: <http://www.tapr.org/>

October 1997

Original source file: dsp.9710
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9710

1. Solution for digital video

```
From: Marius Hauki <hauki@online.no>
Date: Tue, 30 Sep 1997 19:47:20 +0200
To: "'dsp@tapr.org'" <dsp@tapr.org>
Message-ID: <01BCCEAE.C99A5F60@ti34a06-0028.dialup.online.no>
Rendered body type: text/plain
```

To DSP list :

Does anyone have any information to give me regarding a solution
for transmission of digital video.

I am thinking of a analog video signal (NTSC / PAL / SECAM) in and
a digitizer for video. After that I see a video coder
(MPEG or something more tolerant for burst errors)
In the TX end I see some kind phase modulation or frequency modulation.

Any info would be appreciated.

73
Marius Hauki
LA9EEA

2. EZ-KIT SHARC progress

```
From: forrerj@peak.org (Johan Forrer)
Date: Tue, 07 Oct 1997 08:57:14 -0800
To: DSP@tapr.org, HFSIG@tapr.org
Message-ID: <199710071557.IAA03019@peak.org>
Rendered body type: text/plain
```

Hi,

Thought I'd share some progress made on the EZ-KIT SHARC. If you don't know
this evaluation board; it contains a 40MHz ADSP-21061, 32-bit floating point
DSP, and the kit comes with a C compiler and other development tools
(restricted for the kit, but otherwise quite functional). I payed $189 a few
months ago when I got it.

I now have gotten my HF channel simulator working on this platform. Just to
see whether it could be done, I programmed it all in C, stood back to
watched what happened. Well, surprize - it works just fine at the 8kSPS
rate that I choose! A minor amount of code tweaking was necessary to take
non-critical stuff out of critical paths, and in some cases I had to unroll
a few function calls to save on calling overheads. But I did not even use
cicular buffers - instead are using regular C pointer arithmetic. This means
that if one would carefully write in mixed C and assembly to streamline some
of the classical DSP operations like FIR filters, you could actually do a
lot better. Seems like this GNU port for the SHARC does a fairly decent job.

The simulator does everything in 40-bit floating point arithmetic; the HF
channel is modeled after the Watterson ionospheric model where the channel
is implemented as an analytic signal (complex tapped delay line). One direct
and one delayed ray is taken from the delay line, Rayleigh fading is
introduced and finally mixed with a noise model. The Rayleigh fading model
requires a very good random number generator (six calls to this one alone),
sine/cosine function calls (four calls to these two), IIR lowpass filtering
(four times this one is called) and two complex mixers. The resultant
dynamic range is wonderful - I can now observe affects that previously was
missed with fixed point DSP.

Althought I still am a firm believer that it makes sense to write
DSP-specific code in assembly, this example illustrates that one can be
quite productive using C and a chip like this. Although I'm still learning
to drive this DSP, looks like it may become a regular choice for my future
DSP projects.

73

--Johan, KC7WW

3. Re: [DSP:683] EZ-KIT SHARC progress

From: RLANIER@mailb.harris.com (RLANIER)
Date: Tue, 7 Oct 1997 15:46:02 -0400
To: dsp@tapr.org
Message-ID: <43a91110@mailb.harris.com>
Rendered body type: text/plain

Hi Johan,

Glad to hear you are using the SHARC. I too have been impressed with this part and would like to use it in the future as well. I'd like to see the source code when you get it working. It sounds like you have a good test bed for simulating source code - without getting on the air. This would be a great method when another person cannot be found who wants to try your experiment.

Is the HF channel simulator you are using the same as the one mentioned in the new issue of QEX? And how is it being implemented? In the DSP code itself or as a stand-alone program? I would certainly be interested in finding out.

Keep up the good work!

Tony KE4ATO

_____ Reply Separator _____
Subject: [DSP:683] EZ-KIT SHARC progress
Author: dsp@tapr.org at smtp
Date: 10/7/97 11:02 AM

Hi,

Thought I'd share some progress made on the EZ-KIT SHARC. If you don't know this evaluation board; it contains a 40MHz ADSP-21061, 32-bit floating point DSP, and the kit comes with a C compiler and other development tools (restricted for the kit, but otherwise quite functional). I payed $189 a few months ago when I got it.

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73

--Johan, KC7WW

4. Re: [DSP:671] MMX-aware assembler

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 21 Oct 1997 16:39:58 -0800
To: dsp@tapr.org
Message-ID: <199710212340.QAA00994@peak.org>
Rendered body type: text/plain

Hi Alberto,

>Does anybody know about the existence of an assembler for the Pentium
>MMX ?
>Preferrably PD or shareware. I would like to code low-level routines for
>signal processing directly in assembler taking advantage of the MMX,
>but my current assembler doesn't support them.

Some belated information:

I came across a PD assembler that does support MMX instructions called NASM.
Although I have only used it for doing 32-bit work, it apparently will
output a number of 16 and 32-bit formats suitable for Win32, Linux ELF and
A.OUT, and other COFF-based systems. I think I downloaded it from
http://www.ProgrammersHeaven.com. While are at it, also a good idea to get
some tips from http://www.ucalgary.ca/~mmastrac/djgppasm.doc.

This assembler works very well with DJGPP and I have had a lot of fun
learning and doing fun stuff with the Pentium's MMX instructions.

Hope this is sill of interest.

--Johan

5. Feldhell

From: dbraun@ichips.intel.com
Date: Thu, 23 Oct 1997 13:24:18 +0300
To: dsp@tapr.org
Message-ID: <199710231030.AA207042612@dtthp135.jf.intel.com>
Rendered body type: text/plain

Hello all,

As an excuse to learn Win32 programming, NFC, Visual C++, etc., I
wrote a program to send and receive Feldhell telegraphy using the
56002 EVM. What is "Feldhell" you might ask? It is an old and
rather unusual way of sending text, sort of a cross between
telegraphy and facsimile. Below I have included a document from
PE1LLA (who wrote a DOS-based Feldhell program) what explains it
in more detail.

Anyway, I have written a Win95/NT program and a matching modem
program for the EVM. If anybody is already running Feldhell, or
is just curious and would like to play with it, let me know and I
will send you a copy. If people are actually able to use my
program for QSOs without too many problems, I will probably
upload it to ftp.tpar.org or some place like that.

73's,

Doug
SV/N1OWU

WHAT IS HELL?

****(Everything you wanted to know about HELL, but were afraid to ask!)****

If you take the trouble to read this modest peace of text (only a couple
of pages) you'll learn what HELL is and appreciate its advantages.
Don't zap now, but continue reading.

HELL is an abbreviation of 'Feldhellschreiben', an invention of the German
scientist Rudolf Hell. It's a FAX-method to transmit and receive TEXT
(characters). Sounds odd, but pls read further.
He invented it shortly before WW II.
HELL's major advantage is its READABILITY UNDER BAD CONDITIONS !.

Normally you would expect PICTURES to be send by FAX (or SSTV, which is
also a kind of FAX) and TEXT by means of TELEX,TOR,MORSE, etc.
It's true Packet can do both, but more about this later.

Suppose conditions aren't good (weak signals, heavy QRM, etc.).
Telex (and even TOR) then produce garbled text or (in TOR's case)
mostly nothing at all.
Normally Morsecode (=CW) requires the human trained mind to decypher it.
In case of decoding Morsecode with a computer, most CW-programs, even if
used in combination with good hardware, will fail also.

```
But FAX is another case.
Even if the amount of QRM exceeds 50%, you'll still be able to interpret
(or even enjoy) the picture that you've received.
Under those conditions Packet will only do 'retries'.

HERE HELL COMES IN!

HELL combines the property of recognizing FAX-pictures easily, but
without the necessity to transmit a whole screen-picture.

How it's done?

Each character is send as a tiny 7x7 pixels 'Fax-picture'.
An example. The character 'A' is stored in the sending computer like this:

     ABCDEFG
  7  □□□□□□□□
  6  □□□□□□□□
  5  □□□□□□□□
  4  □□□□□□□□
  3  □□□□□□□□
  2  □□□□□□□□
  1  □□□□□□□□

If it wants to transmit this it scans the grid starting on position A1,
(Left column, bottom).
It scans from bottom to top, then the next column (right side)
from bottom to top, etc., until the entire charachter is send.
A background-pixel (here a dot) is signal off; a charachter pixel is
signal on (e.g. 2200 Hz)
In other words the sequence is A1A2A3A4A5A6A7B1B2B3B4B5B6B7C1C2C3 etc.

If on the receiver side this sequence is plotted in the same way as if
it has been scanned the character appears in the same way. (e.g. in the
top left corner of the screen to begin with).
If a subsequent character is received it is plotted immediately on the right
side of the previous character, end so on, until the end of the screen
has been reached.
Then the plot position is lowered with the character height + a couple
of pixels more ( so that it won't 'stick' to the previous row (or sentence))
and brought back to the left side on the screen and plotting continues.
In this way whole rows (sentences) are build.

Now, even when (evenly spread) 50% of the pixels ( fore- and background )
are plotted false the whole sentence might still be readable.
You see that HELL is tailored for bad conditions.

There's only one 'if'. What happens if the receiver starts plotting it's
first character after the sender has already send a couple of pixels?

You would get something like this:

     ABCDEFG
  7  □□□□□□□□
  6  □□□□□□□□
  5  □□□□□□□□
  4  □□□□□□□□
  3  □□□□□□□□
  2  □□□□□□□□
  1  □□□□□□□□

You will notice that the character 'A' has been sliced.
One would say that there is obviously a need for synchronisation.

FALSE! WRONG! Here come's the HELL-TRICK !

On the receiver's side every pixel is plotted TWICE in the following way!
Every pixel that is plotted has an echo (or duplicate if you want)
exactly 7 positions above it.

In this way the previous example would look like this:

 14  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□   □
 13  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
 12  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
 11  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
 10  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
  9  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
  8  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
```

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  7  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
  6  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
  5  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
  4  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
  3  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
  2  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
  1  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

You see that, although plotting takes up twice the vertical space, a
complete character 'A' is now visible. (I added a 'B' and a 'C' just
to show how a row (sentence) is being composed)
With this method there's ALWAYS at least one complete character visible,
no matter when and were the plotting starts!

So: NO NEED FOR SYNCHRONISATION !

And, finally, what if the speed of the sending and receiving side is
not entirely equal?

No problem either!

If the difference in speed isn't too dramatic, it will only result in
subsequent characters to be plotted gradually higher or lower.
In other words, the row or sentence will slant a little bit, but since
there is always at least always a whole character visible you won't miss
a thing.

The standard HELL-speed is 122.5 baud. ( 2.5 characters/second ).
A difference of 1 or 2 baud between sender and receiver still results
in excellent readability.

At this point you should see the GIF-picture to see what I mean.

Finally:

3 things are amazing.

First that the system (like it's other FAX-counterparts) originally
was entirely done mechanically.

Second that it's so simple on a computer.

Third that it's used only (or at least chiefly) by amateurs in the
middle and northern part of Europe, although the advantages are so
obvious.

My advise: TRY HELL, in this case you won't regret!

If, after having read this, you would like to continue and find out,
pls return to the textfile 'readmefi.rst' and continue reading how
to install the programm and to fiddle with it (even with no hardware
connected)

have fun!

'73 PE1LLA
```

6. Re: [DSP:686] DSP digest 230

```
From: sheetsg@titan.sme.sctl.seagate.com (Greg Sheets (Designer SME))
Date: Thu, 23 Oct 1997 11:52:22 +0100
To: dsp@tapr.org
Message-ID: <199710231052.LAA25599@rigel.sctl.seagate.com>
Rendered body type: text/plain
```

[Empty message body]

7. Re: [DSP:686] Feldhell

```
From: Eduardo Jacob <edu@kender.es>
Date: Thu, 23 Oct 1997 20:12:35 -0100
To: dsp@tapr.org
Message-ID: <3.0.3.32.19971023201235.007e2e40@kender.es>
Rendered body type: text/plain
```

At 05:35 23/10/97 -0500, you wrote:
>Anyway, I have written a Win95/NT program and a matching modem
>program for the EVM. If anybody is already running Feldhell, or
>is just curious and would like to play with it, let me know and I
>will send you a copy.

I would be interested in it. BTW the dtmf.asm in tapr.org seems to be corrupted, could you join it also?

Best regards

Eduardo

BTW: Did to manage to have psk31 or coherent qso?, if you wan't we could try. I have made several transoceanic ones on coherent and I routinely get in a psk31 roundtable.

8. RE: [DSP:686] Feldhell

From: Charl Cilliers <charlc@grinaker.co.za>
Date: Mon, 27 Oct 1997 14:55:20 +0200
To: "'dsp@tapr.org'" <dsp@tapr.org>
Message-ID: <c=US%a=_%p=GRINAKER%l=GRINMAIL-971027125520Z-4264@gel-mail.grinaker.co.za>
Rendered body type: text/plain

Good Day,

I for one would be very interested in the DSP code of this program. I am working for an electronic firm and would like to play with this idea.
Regards
Charl Cilliers

>----------
>From: dbraun@ichips.intel.com[SMTP:dbraun@ichips.intel.com]
>Sent: 23 October 1997 10:35
>To: dsp@tapr.org
>Subject: [DSP:686] Feldhell
>
>
>
>Hello all,
>
>As an excuse to learn Win32 programming, NFC, Visual C++, etc., I
>wrote a program to send and receive Feldhell telegraphy using the
>56002 EVM. What is "Feldhell" you might ask? It is an old and
>rather unusual way of sending text, sort of a cross between
>telegraphy and facsimile. Below I have included a document from
>PE1LLA (who wrote a DOS-based Feldhell program) what explains it
>in more detail.
>
>Anyway, I have written a Win95/NT program and a matching modem
>program for the EVM. If anybody is already running Feldhell, or
>is just curious and would like to play with it, let me know and I
>will send you a copy. If people are actually able to use my
>program for QSOs without too many problems, I will probably
>upload it to ftp.tpar.org or some place like that.
>
>73's,
>
>Doug
>SV/N1OWU
>
>
>
>   WHAT IS HELL?
>
>****(Everything you wanted to know about HELL, but were afraid to ask!)****
>
>If you take the trouble to read this modest peace of text (only a couple
>of pages) you'll learn what HELL is and appreciate its advantages.
>Don't zap now, but continue reading.
>
>HELL is an abbreviation of 'Feldhellschreiben', an invention of the German
>scientist Rudolf Hell. It's a FAX-method to transmit and receive TEXT
>(characters). Sounds odd, but pls read further.
>He invented it shortly before WW II.
>HELL's major advantage is its READABILITY UNDER BAD CONDITIONS !.
>
>Normally you would expect PICTURES to be send by FAX (or SSTV, which is
>also a kind of FAX) and TEXT by means of TELEX,TOR,MORSE, etc.
>It's true Packet can do both, but more about this later.
>
>Suppose conditions aren't good (weak signals, heavy QRM, etc.).
>Telex (and even TOR) then produce garbled text or (in TOR's case)
>mostly nothing at all.
>Normally Morsecode (=CW) requires the human trained mind to decypher it.

```
>In case of decoding Morsecode with a computer, most CW-programs, even if
>used in combination with good hardware, will fail also.
>
>But FAX is another case.
>Even if the amount of QRM exceeds 50%, you'll still be able to interpret
>(or even enjoy) the picture that you've received.
>Under those conditions Packet will only do 'retries'.
>
>HERE HELL COMES IN!
>
>HELL combines the property of recognizing FAX-pictures easily, but
>without the necessity to transmit a whole screen-picture.
>
>How it's done?
>
>Each character is send as a tiny 7x7 pixels 'Fax-picture'.
>An example. The character 'A' is stored in the sending computer like this:
>
>     ABCDEFG
>  7  ùùùùùùùù
>  6  ùùùÛùùùù
>  5  ùùÛùÛùùù
>  4  ùÛùùùÛùù
>  3  ùÛÛÛÛÛùù
>  2  ùÛùùùÛùù
>  1  ùùùùùùùù
>
>If it wants to transmit this it scans the grid starting on position A1,
>(Left column, bottom).
>It scans from bottom to top, then the next column (right side)
>from bottom to top, etc., until the entire charachter is send.
>A background-pixel (here a dot) is signal off; a charachter pixel is
>signal on (e.g. 2200 Hz)
>In other words the sequence is A1A2A3A4A5A6A7B1B2B3B4B5B6B7C1C2C3 etc.
>
>If on the receiver side this sequence is plotted in the same way as if
>it has been scanned the character appears in the same way. (e.g. in the
>top left corner of the screen to begin with).
>If a subsequent character is received it is plotted immediately on the right
>side of the previous character, end so on, until the end of the screen
>has been reached.
>Then the plot position is lowered with the character height + a couple
>of pixels more ( so that it won't 'stick' to the previous row (or sentence))
>and brought back to the left side on the screen and plotting continues.
>In this way whole rows (sentences) are build.
>
>Now, even when (evenly spread) 50% of the pixels ( fore- and background )
>are plotted false the whole sentence might still be readable.
>You see that HELL is tailored for bad conditions.
>
>There's only one 'if'. What happens if the receiver starts plotting it's
>first character after the sender has already send a couple of pixels?
>
>You would get something like this:
>
>     ABCDEFG
>  7  ùÛùùùÛùù
>  6  ùùùùùùùù
>  5  ùùùùùùùù
>  4  ùùùÛùùùù
>  3  ùùÛùÛùùù
>  2  ùÛùùùÛùù
>  1  ùÛÛÛÛÛùù
>
>You will notice that the character 'A' has been sliced.
>One would say that there is obviously a need for synchronisation.
>
>FALSE! WRONG! Here come's the HELL-TRICK !
>
>On the receiver's side every pixel is plotted TWICE in the following way!
>Every pixel that is plotted has an echo (or duplicate if you want)
>exactly 7 positions above it.
>
>In this way the previous example would look like this:
>
> 14  ùÛùùùÛùùÛÛÛÛùùùùÛÛÛÛùùùùùùùùùùùùùùùùùùùùùùùùùùùù   Û
> 13  ùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
> 12  ùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
> 11  ùùùÛùùùùÛÛÛÛùùùùÛÛÛÛùùùùùùùùùùùùùùùùùùùùùùùùùùùù
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> 10  ùùÛùÛùùùÛùùùÛùùÛùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
>  9  ùÛùùùÛùùÛÛÛÛùùùÛùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
>  8  ùÛÛÛÛÛùùÛùùùÛùùÛùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
>  7  ùÛùùùÛùùÛÛÛÛùùùùÛÛÛÛùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
>  6  ùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
>  5  ùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
>  4  ùùùÛùùùùÛÛÛÛùùùùÛÛÛÛùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
>  3  ùùÛùÛùùùÛùùùÛùùÛùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
>  2  ùÛùùùÛùùÛÛÛÛùùùÛùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
>  1  ùÛÛÛÛÛùùÛùùùÛùùÛùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùùù
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>You see that, although plotting takes up twice the vertical space, a
>complete character 'A' is now visible. (I added a 'B' and a 'C' just
>to show how a row (sentence) is being composed)
>With this method there's ALWAYS at least one complete character visible,
>no matter when and were the plotting starts!
>
>So: NO NEED FOR SYNCHRONISATION !
>
>And, finally, what if the speed of the sending and receiving side is
>not entirely equal?
>
>No problem either!
>
>If the difference in speed isn't too dramatic, it will only result in
>subsequent characters to be plotted gradually higher or lower.
>In other words, the row or sentence will slant a little bit, but since
>there is always at least always a whole character visible you won't miss
>a thing.
>
>The standard HELL-speed is 122.5 baud. (2.5 characters/second).
>A difference of 1 or 2 baud between sender and receiver still results
>in excellent readability.
>
>At this point you should see the GIF-picture to see what I mean.
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>
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>
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>middle and northern part of Europe, although the advantages are so
>obvious.
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>My advise: TRY HELL, in this case you won't regret!
>
>If, after having read this, you would like to continue and find out,
>pls return to the textfile 'readmefi.rst' and continue reading how
>to install the programm and to fiddle with it (even with no hardware
>connected)
>
>have fun!
>
>'73 PE1LLA
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9. Re: code for Texas 320c5x help

From: "David Armstrong" <darmstrong@tti-ltd.co.uk>
Date: Mon, 27 Oct 1997 13:23:21 -0000
To: <dsp@tapr.org>
Message-ID: <199710271324.NAA06366@goole.octacon.co.uk>
Rendered body type: text/plain

Hi, ALL.
Just New to dsp is any source of HF PACKET or Pactor programs around for
texas 320c5 series or 320c2x preferably in C as this is my first encounter
with dsp
or is assembler the only way .

ALL Help acknowledged .

looking at trying to speed up to about 2400 bd on hf

REGARDS ALL

DAVID G0JQO

darmstrong@tti-ltd.co.uk

10. Re: [DSP:648] DSP digest 207

From: je_davis@ibm.net
Date: Fri, 31 Oct 1997 07:42:40 -0700
To: dsp@tapr.org
Message-ID: <Chameleon.878309040.jedavis@system_one>
Rendered body type: text/plain

  From: dsp@tapr.org
  Subject: [DSP:648] DSP digest 207
  Date: Sat, 6 Sep 1997 11:50:23 -0500 (CDT)
  To: dsp@tapr.org

>   DSP Digest 207
>
> Topics covered in this issue include:
>
>   1) Re: TAPR EVM interface boards
>   by "Greg Jones, WD5IVD" <wd5ivd@tapr.org>

----------------------------- snip --
> I think that is about all we have at this point. We wilkl not have a date
> or price until we get a little further along.

Greg where does this project stand?

TNX

Name: Jack E. Davis
EMAIL: je_davis@ibm.net
Date: 10/31/97
Time: 07:43:46 PST
---

11. New DSP-93 Program

From: "Wheatley, Maurice" <mwheatle@trsystems.com>
Date: Wed, 29 Oct 1997 09:44:40 -0500
To: "'dsp-93'" <dsp-93@tapr.org>
Message-ID: <0EBC18A2F84FD11185760000F80163EA55F4@www.trsystems.com>
Rendered body type: text/plain

Intrigued by the old Heathkit MAC (Most Accurate Clock),
Amazed by the TAC (Totally Accurate Clock),
Spurred on by David Mills Precision Radio Clock,

now introducing the TIC (Totally Insane Clock).

The TIC program is a functional Cuckoo Clock that runs on the TAPR/AMSAT
DSP-93 hardware platform that sets itself to the correct time using off
the air signals from WWV shortwave broadcasts.

Features:

- AGC function on input samples.
- 1000Hz and 100Hz FIR Bandpass filters used to recover WWV time
signals.
- Bit by bit data integration method extracts time information from WWV
signal
- ASCII time string output in 12 or 24 hour format from DSP-93 UART.
- Hourly gongs or cuckoo's and bells at 15, 30, and 45 minutes past
hour.
- Sound effects produced using FM synthesis methods.
- Automatic Daylight savings time adjustment except for GMT output.
- Assembly options for various time zones, sound options, radio port,
etc.
- Automatic internal clock compensation for stand alone timekeeping.
- DOS clock viewer program included for displaying UART time string.

The program files and documentation are in a ZIP file "TIC10.ZIP" as
well as a brief description file "TIC10.TXT"

The files were uploaded to < ftp.tapr.org/dsp93/upload/ >

The files are also available at
http://www.mindspring.com/~ae4jy/projects.htm

So if your DSP-93 is just gathering dust as a doorstop or paperweight,
perhaps this program will provide a use for it.

73's
Moe AE4JY

12. Undeliverable:[DSP-93:2629] New DSP-93 Program

From: "System Administrator" <SysAdmin@classic.msn.com>
Date: Wed, 29 Oct 97 14:40:43 UT
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <UPMAIL01.19971029153328073l@classic.msn.com>
Rendered body type: text/plain

Your message did not reach some or all of the intended recipients.

        Subject [DSP-93:2629] New DSP-93 Program
        Sent   Wed, 29 Oct 97 14:40:43 UT

The following recipient(s) could not be reached:

        amalc@classic.msn.com On Wed, 29 Oct 97 15:33:28 UT
                This is not an active account on The Microsoft Network. Either the account
does not exist, or the Member ID is expired.

Date: Wed, 29 Oct 97 14:40:43 UT
From: "Wheatley, Maurice" <mwheatle@trsystems.com>
Sender: "dsp-93@tapr.org" <dsp-93@tapr.org>
To: dsp-93@tapr.org
Subject: [DSP-93:2629] New DSP-93 Program

Intrigued by the old Heathkit MAC (Most Accurate Clock),
Amazed by the TAC (Totally Accurate Clock),
Spurred on by David Mills Precision Radio Clock,

now introducing the TIC (Totally Insane Clock).

The TIC program is a functional Cuckoo Clock that runs on the TAPR/AMSAT
DSP-93 hardware platform that sets itself to the correct time using off
the air signals from WWV shortwave broadcasts.

Features:

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signals.
- Bit by bit data integration method extracts time information from WWV
signal
- ASCII time string output in 12 or 24 hour format from DSP-93 UART.
- Hourly gongs or cuckoo's and bells at 15, 30, and 45 minutes past
hour.
- Sound effects produced using FM synthesis methods.
- Automatic Daylight savings time adjustment except for GMT output.
- Assembly options for various time zones, sound options, radio port,
etc.
- Automatic internal clock compensation for stand alone timekeeping.
- DOS clock viewer program included for displaying UART time string.

The program files and documentation are in a ZIP file "TIC10.ZIP" as
well as a brief description file "TIC10.TXT"

The files were uploaded to < ftp.tapr.org/dsp93/upload/ >

The files are also available at
http://www.mindspring.com/~ae4jy/projects.htm

So if your DSP-93 is just gathering dust as a doorstop or paperweight,
perhaps this program will provide a use for it.

73's
Moe AE4JY

13. Undeliverable:[DSP-93:2630] Undeliverable:New DSP-93 Program

From: "System Administrator" <SysAdmin@classic.msn.com>
Date: Wed, 29 Oct 97 17:52:35 UT
To: "dsp-93@tapr.org" <dsp-93@tapr.org>
Message-ID: <UPMAIL01.19971029190146082 5@classic.msn.com>
Rendered body type: text/plain

Your message did not reach some or all of the intended recipients.

Subject [DSP-93:2630] Undeliverable:New DSP-93 Program
Sent Wed, 29 Oct 97 17:52:35 UT

The following recipient(s) could not be reached:

amalc@classic.msn.com On Wed, 29 Oct 97 19:01:46 UT
This is not an active account on The Microsoft Network. Either the account
does not exist, or the Member ID is expired.

Date: Wed, 29 Oct 97 17:52:35 UT
From: "System Administrator" <SysAdmin@classic.msn.com>
Sender: "dsp-93@tapr.org" <dsp-93@tapr.org>
To: dsp-93@tapr.org
Subject: [DSP-93:2630] Undeliverable:New DSP-93 Program

Your message did not reach some or all of the intended recipients.

Subject [DSP-93:2629] New DSP-93 Program
Sent Wed, 29 Oct 97 14:40:43 UT

The following recipient(s) could not be reached:

amalc@classic.msn.com On Wed, 29 Oct 97 15:33:28 UT
This is not an active account on The Microsoft Network. Either the account does not exist, or the Member ID is expired.

Date: Wed, 29 Oct 97 14:40:43 UT
From: "Wheatley, Maurice" <mwheatle@trsystems.com>
Sender: "dsp-93@tapr.org" <dsp-93@tapr.org>
To: dsp-93@tapr.org
Subject: [DSP-93:2629] New DSP-93 Program

Intrigued by the old Heathkit MAC (Most Accurate Clock),
Amazed by the TAC (Totally Accurate Clock),
Spurred on by David Mills Precision Radio Clock,

now introducing the TIC (Totally Insane Clock).

The TIC program is a functional Cuckoo Clock that runs on the TAPR/AMSAT DSP-93 hardware platform that sets itself to the correct time using off the air signals from WWV shortwave broadcasts.

Features:

- AGC function on input samples.
- 1000Hz and 100Hz FIR Bandpass filters used to recover WWV time signals.
- Bit by bit data integration method extracts time information from WWV signal
- ASCII time string output in 12 or 24 hour format from DSP-93 UART.
- Hourly gongs or cuckoo's and bells at 15, 30, and 45 minutes past hour.
- Sound effects produced using FM synthesis methods.
- Automatic Daylight savings time adjustment except for GMT output.
- Assembly options for various time zones, sound options, radio port, etc.
- Automatic internal clock compensation for stand alone timekeeping.
- DOS clock viewer program included for displaying UART time string.

The program files and documentation are in a ZIP file "TIC10.ZIP" as well as a brief description file "TIC10.TXT"

The files were uploaded to < ftp.tapr.org/dsp93/upload/ >

The files are also available at
http://www.mindspring.com/~ae4jy/projects.htm

So if your DSP-93 is just gathering dust as a doorstop or paperweight, perhaps this program will provide a use for it.

73's
Moe AE4JY

November 1997

Original source file: dsp.9711
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9711

1. Re: Error Condition Re: unsubscribe

From: jodie hoffman <jhoffma@tombstonepl.lib.az.us>
Date: Mon, 03 Nov 1997 08:25:49
To: dsp@tapr.org
Message-ID: <3.0.1.32.19971103082549.00903c90@tombstonepl.lib.az.us>
Rendered body type: text/plain

At 09:11 AM 11/3/97 -0600, you wrote:
>
>We are sorry, but this system sensed the following request which may have
been
>inadvertedly sent to this list:
>
>UNSUBSCRIBE
>
>If your posting was intentional, please accept our apologies and resend your
>mail message, making sure you do not include anything that may look like a
>request in the first line of the body of the actual message. If this was
>indeed a request please resend it to listproc@tapr.org
>Your entire message
>is copied below.
>
>--

>unsubscribe
>
>
>

2. Signoff

From: "Frederick M. Spinner" <fred@tekdata.com>
Date: Mon, 3 Nov 1997 09:23:23 -0600 (CST)
To: ss@tapr.org, dsp@tapr.org
Message-ID: <Pine.LNX.3.95.971103091112.15304B-100000@tekdata.com>
Rendered body type: text/plain

Sorry to tie up the bandwidth, but I've tried multiple times and ways
to unsubscribe to these lists (via e-mail listproc signoff messages,
and from the TAPR web site). I'm changing employers, and moving, so
I really need these lists turned off.

P.S. the signoffs to APRSSIG and MIC-E worked.

Thanks.

Fred M. Spinner, KA9VAW

3. PSA tools.

From: Jim Sanford <jsanfor@exis.net>
Date: Tue, 11 Nov 1997 07:43:59 -0500
To: dsp@tapr.org
Message-ID: <3468530E.68B64433@exis.net>
Rendered body type: text/plain

Johan:
Long ago you published tools on using the PSS sound systems which used the analog
devices dsp2115 chip sets. Having been forced to upgrade to win95, I note that
there are no drivers for those cards, or at least the 2 that I have.

Their main reason for existing is a convenient platform for development, so I
wonder if you've thought about porting your tools over the windoze?

Thanks for all you've done to further the amateur state of the art.

73, Jim
wb4gcs@amsat.org

Johan Forrer wrote:

4. Re: [DSP:694] PSA tools.

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 11 Nov 1997 09:30:10 -0800
To: dsp@tapr.org
Message-ID: <199711111730.JAA15649@peak.org>
Rendered body type: text/plain

Hello Jim,

Been a while since I have used the PSS tools. Some time ago I did very
briefly investigate the possibilities for developing a DLL that would allow
native Win95 code to be developed, but to be honest, theres too much else
going on at the moment.

73

--Johan

>Johan:
>Long ago you published tools on using the PSS sound systems which used the
analog
>devices dsp2115 chip sets. Having been forced to upgrade to win95, I note that
>there are no drivers for those cards, or at least the 2 that I have.
>
>Their main reason for existing is a convenient platform for development, so I
>wonder if you've thought about porting your tools over the windoze?
>
>Thanks for all you've done to further the amateur state of the art.
>
>73, Jim
>wb4gcs@amsat.org
>
>
>Johan Forrer wrote:
>
>
>

5. Re: [DSP:695] Re: PSA tools.

From: Jim Sanford <jsanfor@exis.net>
Date: Tue, 11 Nov 1997 15:27:23 -0500
To: dsp@tapr.org
Message-ID: <3468BFAB.11256449@exis.net>
Rendered body type: text/plain

Johan:
Thanks. I may take that on, using your PSAtools as a model. I like the analog
devices chip set much better than the proprietary stuff that creative labs uses, too
bad they've become the standard. If I start something will keep in touch with you.

73, Jim

Johan Forrer wrote:

> Hello Jim,
>
> Been a while since I have used the PSS tools. Some time ago I did very
> briefly investigate the possibilities for developing a DLL that would allow
> native Win95 code to be developed, but to be honest, theres too much else
> going on at the moment.
>
> 73
>
> --Johan
>
>
> >Johan:
> >Long ago you published tools on using the PSS sound systems which used the
> analog
> >devices dsp2115 chip sets. Having been forced to upgrade to win95, I note that
> >there are no drivers for those cards, or at least the 2 that I have.
> >
> >Their main reason for existing is a convenient platform for development, so I
> >wonder if you've thought about porting your tools over the windoze?
> >
> >Thanks for all you've done to further the amateur state of the art.
> >
> >73, Jim
> >wb4gcs@amsat.org

> >
> >
> >Johan Forrer wrote:
> >
> >
> >

6. Updated EVM interface for Coherent BPSK

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 14 Nov 1997 10:14:06 -0800
To: DSP@tapr.org, HFSIG@tapr.org
Message-ID: <199711141814.KAA20143@peak.org>
Rendered body type: text/plain

Hi folks,

Pretty quiet these days - guess everyone's out having fun?

Just an update on some new code options for those interested in doing BPSK
on HF. I have added an option to my EVM interface program for use with the
VE2IQ, Coherent, program. That allows one to use a "new" waveform called the
"BLOB" waveform. The code package includes source code containing several
compile-time switches that accomodate all the various waveforms that
Coherent supports. The default is the blob waveform that is used as of lately.

Please look for COHEVM20.ZIP in ftp.tapr.org/tapr/SIG/dsp/recent_uploads.
It should appear there as soon as Tim has had the opportunity to move it
there (thanks Tim!).

As this is rather experimental stuff, I would appreciate feedback. The code
have been tested to work quite nicely during my regular skeds on BPSK with
Bill, WB6RIJ in Santa Barbara, but we would very much welcome any others
that would like to join in.

Have fun,

--Johan, KC7WW

7. Re: [DSP:697] Updated EVM interface for Coherent BPSK

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Fri, 14 Nov 97 16:34:17 CST
To: dsp@tapr.org
Message-ID: <9711142234.AA28315@aa5df.sps.mot.com>
Rendered body type: text/plain

> Coherent supports. The default is the blob waveform that is used as of lately.

Hi Johan, et al,

The files have been moved into recent_uploads. Some day I'm going to
have to reorganize and move the not-so-recent-uploads into some sort of
structure....

Can you explain this 'blob' waveform that is used???

Tim

8. Re: [DSP:698] Re: Updated EVM interface for Coherent BPSK

From: forrerj@peak.org (Johan Forrer)
Date: Fri, 14 Nov 1997 19:42:46 -0800
To: dsp@tapr.org
Message-ID: <199711150343.TAA26067@peak.org>
Rendered body type: text/plain

Hi Tim,

>The files have been moved into recent_uploads. Some day I'm going to
>have to reorganize and move the not-so-recent-uploads into some sort of
>structure....

Thanks Tim.

>Can you explain this 'blob' waveform that is used???

Simple really - each and every symbol's amplitude is shaped regardless of
whether a binary one or zero is transmitted. Looking at it on a scope, looks
like a string of beads or blobs tied together. Each symbol corresponds to a
"blob". With this arrangement one find that both the audio cycle and the RF
carrier is forced to a minumum at points where there could possibly be a
change of phase. The result is a narrow emitted spectrum with no serious
disadvantages.

73

--Johan

9. Re: [DSP:697] Updated EVM interface for Coherent BPSK

From: "Jim Lynch" <k4gvo@mail.mindspring.com>
Date: Sat, 15 Nov 1997 07:33:57 +0000
To: dsp@tapr.org
Message-ID: <199711151233.HAA04757@camel8.mindspring.com>
Rendered body type: text/plain

> Hi folks,
>
> Pretty quiet these days - guess everyone's out having fun?
>
Hi, Johan,

Not as much fun as we could be having if we could play with your
program. 8(What ever happened to the interface board that was
forthcoming? Should I sell my evm? It's just gathering dust....

Thanks for keeping the coherent effort going.

73,
Jim.
Jim Lynch   Fayetteville, GA   K4GVO
'86 GL1200I   k4gvo@mindspring.com   44.36.34.20

10. Re: [DSP:700] Re: Updated EVM interface for Coherent BPSK

From: forrerj@peak.org (Johan Forrer)
Date: Sat, 15 Nov 1997 09:56:30 -0800
To: dsp@tapr.org
Message-ID: <199711151757.JAA10432@peak.org>
Rendered body type: text/plain

Hi Jim,

>Not as much fun as we could be having if we could play with your
>program. 8(What ever happened to the interface board that was
>forthcoming? Should I sell my evm? It's just gathering dust....

I'm not supposed to say anything about this; but hold on tight, the project
is alive and well. From what I have seen from the folks involved in
development work, all looks very good. TAPR will probably make some
announcement or another in the very near future.

>Thanks for keeping the coherent effort going.

You're welcome, but my contribution is really minimal - If you are really
interested in this weak signal experimentation, start following the work
done these days on the low frequency bands, i.e., like 73kHz, 130kHz, and
160 meters. There also are interesting laser communications being done using
this same software. Check out the e-mail reflector that supports these
efforts of which I attached a short. For submission to this reflector, try
bpsk@qth.net.

73

--Johan

----------Snippet from BPSK.NET
reflector----------
> Just to let you know that a 'one-way' QSO took place on 72.09kHz on Sunday
>Nov 9th from G4JNT in Southampton to me using Coherent BPSK. Distance is
>192km (IO90IV to IO92JP) and Andy was using simple phase-switching via a DBM
>and approx. 200W (to be confirmed) into a very inefficient T antenna.
>Reception was weak and there were continuous loud static crashes knocking
>out the signal. The first test was at MS200 and ET0 with the message 'G4GVC
>DE G4JNT' repeated over and over - here are some parts of my TRACE file:

```
>
>COHERENT log opened: Sun Nov  9 1997  at 10:48
>10:48:20 MtG4J^,L4GVC KE#C7JOTA4[07]QS D[05] [01]4JNT So94JU5tf[03]c[06]
>10:49:12 O4GPo D[01](G4BNT##  G4GfC3DE [07]4ZJT   xG4DV[1B][0A]DEF4JFL0"
>10:50:05 [09]I|0I[05]G4[0D]VC,[0C]E`G7jOT [10]`tG4g[C`DE`7tBNU  [13]%GTC
>10:50:51 VC[1C][08][05]@!A`@P`[02][02]`e[1A][03][04]|[08][10]@0D[01],`G4
>10:52:18 DV@DE P4@NT W0GZB De G4J[0E][14]@'4DVC[10]DE"E[14]RMTG4GVo PI J
>10:54:04 4J^T[07]4GVC IE$G4\RT K47VB LE`G4R]|G4GVC DD F4LNT"□4GVCHDE G4J
>10:56:08 JTG4BVC DEG4JOT@G4GVC@TE G4JHXG4GVC AE G*NNT l4AVK $E _4HNSw4GV
>10:58:22 # DE G4JN& G2GVC Dm G4tNPG[04]gVC DE0[07]4BNT(O4[07]L7[10][02]D
>
```

11. DSP Education On-Line

```
From: dspnews@dspnet.com (by way of Greg Jones, WD5IVD)
Date: Thu, 20 Nov 1997 01:41:18 -0600
To: " TAPR/AMSAT DSP "<dsp@tapr.org>
Message-ID: <v03110702b0999a17e720@[208.134.134.40]>
Rendered body type: text/plain
```

Dear Colleague,

TechOnLine is asking you to help shape the future of training on digital signal processing theory, products, and applications. At TechOnLine, we believe that the Internet will be a very effective vehicle for delivering technical training. Our goal is to create a library of FREE interactive educational courses that include instructional portions, practice exercises, and/or lab sessions to satisfy your educational needs.

For more a more in-depth discussion of these courses, please take a look at our explanation at

http://www.techonline.com/survey/Welcome.html

We are conducting this survey to compile a list of preferred courses. This is your opportunity to influence future offerings to better satisfy your requirements. If you complete this survey by November 26, 1997, you will be eligible to win one of three US ROBOTICS Personal Edition PalmPilots. You will be asked to enter your e-mail address to avoid duplicate entries and so we can notify you if you have won one of the PalmPilots; your e-mail address will not be used for junk e-mail. Multiple entries will be disqualified from the survey and the raffle. For more information on PalmPilots you may visit the US Robotics Web site at http://palmpilot.3com.com/palm/index.html

Your answers will be kept completely confidential, but the results will be shared with the leaders in DSP design and development. These leaders are interested and committed to hearing your feedback and incorporating it into future Internet-based course offerings.

The survey has been carefully designed to take less than ten minutes to complete. You may complete the questionnaire by choosing one of the following methods:

1. On the web at http://www.techonline.com/survey/DSPeducation.html
2. By sending an e-mail to DSPeducation@techonline.com, we will e-mail the survey to you. You can then e-mail fax or mail the survey back to us after you have answered the questions. Our fax number is +1 (781) 899-4449 and our mailing address is 296 Newton Street, Suite 350, Waltham, MA 02154, USA

Thank you for your time, and we look forward to seeing the results of the survey.

12. Further-updated EVM interface for Coherent BPSK

```
From: forrerj@peak.org (Johan Forrer)
Date: Thu, 20 Nov 1997 08:42:17 -0800
To: DSP@tapr.org, HFSIG@tapr.org
Message-ID: <199711201642.IAA06112@peak.org>
Rendered body type: text/plain
```

Hi Folks,

Another update on code for those interested in doing BPSK on HF using the VE2IQ, "Coherent" program in conjunction with a DSP56002EVM. Better than 1 ppm timing accuracy is now possible (thanks to G3PLX for the hint).

The results are available as COHEVM21.ZIP on ftp.tapr.org/tapr/SIG/dsp/recent_uploads. Please the included commented

source code on how to go about this.

A further bit of good news; since this application does not rely on the
accuracy of the CPU clock any longer, you may retain the ceramic resonator
part, if you have one of those.

Enjoy!

--Johan, KC7WW

PS. (Tim, could you move the code to the recent-upload directory - thanks much!)

13. APT rx

From: kjh@goober.shoreline-studios.com (Ken Harris)
Date: Fri, 21 Nov 1997 11:15:38 -0800
To: wxsat-l@ssg.com, dsp@tapr.org, dbraun@ichips.intel.com
Message-ID: <199711211915.LAA08877@goober.shoreline-studios.com>
Rendered body type: text/plain

I want to write a satellite weather fax (APT) demodulator in
"C" to run on a UNIX workstation.

        Can you give me a reference on algorithms used?

        I looked at the APT code for the EVM56002. It seems
to be a PLL.

Ken J. Harris   voice: 650/969-7896 x 15   fax: 650/969-7864
mailto:kjh@shoreline-studios.com   http://www.shoreline-studios.com
snail mail: 1804 N. Shoreline Blvd, Ste 240, Mountain View, CA 94043

14. Re: [DSP:703] Further-updated EVM interface for Coherent BPSK

From: Rob Frohne <frohro@wwc.edu>
Date: Sun, 23 Nov 1997 13:34:39 -0800 (PST)
To: dsp@tapr.org
Message-ID: <199711232134.NAA11594@adams.wwc.edu>
Rendered body type: text/plain

Greetings Folks,

Two questions:

1) Did anything ever come of a group order for the circuit boards for the
56002EVM radio interface?

2) I'm wondering about how well the noise reduction software works. Does
anyone have any comments on any of the routines?

Thanks & 73,

Rob kl7na/w7

15. Re: [DSP:704] APT rx

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Mon, 24 Nov 1997 09:38:52 +0100
To: dsp@tapr.org
Message-ID: <34793D1C.21EE@ife.ee.ethz.ch>
Rendered body type: text/plain

Ken Harris wrote:
>
>   I want to write a satellite weather fax (APT) demodulator in
> "C" to run on a UNIX workstation.

On my webpage http://www.ife.ee.ethz.ch/~sailer/ham/ham.html
you can find a HF fax demodulator, which could serve as a starting
point. You'd need to replace the FM demodulator by an AM
demod

73s
Tom

16. Looking for 1 or 2 DSP56L002PV40 or 66

From: Michael Payne <mpayne@io.com>
Date: Tue, 25 Nov 1997 12:58:01 -0600

To: DSP List <dsp@tapr.org>
Message-ID: <347B1FB9.9D433805@io.com>
Rendered body type: text/plain

Does anyone know where I could obtain small quantities (1,2 no more
than 3) Motorola DSP56L002PV40 DSPs? This is the 3.3 Volt version in
the 144TQFP package. The only place I found them had a minimum order of
~30.

Thanks,
Michael Payne
mpayne@io.com

17. Re: [DSP:704] APT rx

From: John Scott <kd4vhg@radio.org>
Date: Tue, 25 Nov 1997 14:28:38 -0500
To: dsp@tapr.org
Message-ID: <347B26E5.306F5825@radio.org>
Rendered body type: text/plain

Ken Harris wrote:

>   I looked at the APT code for the EVM56002. It seems
> to be a PLL.
>

Ken,

What EVM56002 code are you refering to? I have looked around and not
found any referance to it. Could you supply a URL?

Thanks
-John Scott
kd4vhg

18. Re: [DSP:707] Looking for 1 or 2 DSP56L002PV40 or 66

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Tue, 25 Nov 97 14:25:27 CST
To: dsp@tapr.org
Message-ID: <9711252025.AA22136@aa5df.sps.mot.com>
Rendered body type: text/plain

> Does anyone know where I could obtain small quantities (1,2 no more
> than 3) Motorola DSP56L002PV40 DSPs? This is the 3.3 Volt version in
> the 144TQFP package. The only place I found them had a minimum order of
> ~30.

  Michael,

As of 11/21/97, our marketing dept. Arrow Electronics as having some in
stock. Try giving them a call. They may already be spoken for, but it
is work checking into.

Regards,
Tim

19. Re: [DSP:708] Re: APT rx

From: "Ken Harris" <kjh@goober.shoreline-studios.com>
Date: Tue, 25 Nov 1997 13:33:59 -0800
To: dsp@tapr.org
Message-ID: <9711251333.ZM18541@goober.shoreline-studios.com>
Rendered body type: text/plain

On Nov 25, 1:27pm, John Scott wrote:
> Subject: [DSP:708] Re: APT rx
>
>
> Ken Harris wrote:
>
> >   I looked at the APT code for the EVM56002. It seems
> > to be a PLL.
> >
>
> Ken,
>
> What EVM56002 code are you refering to? I have looked around and not
> found any referance to it. Could you supply a URL?

http://www.tekdata.com/KA9VAW/EVM/
http://www.tekdata.com/KA9VAW/EVM/N1OWU_instructions.html

Inside there is a file called APT.ASM

20. Re: [DSP:705] Re: Further-updated EVM interface for Coherent BPSK

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Tue, 25 Nov 97 16:25:13 CST
To: dsp@tapr.org
Message-ID: <9711252225.AA22388@aa5df.sps.mot.com>
Rendered body type: text/plain

> 1) Did anything ever come of a group order for the circuit boards for the
> 56002EVM radio interface?

There was only one order, and never really plans for two. Those in
charge of it at Motorola have moved into other positions. Future
chances? Sure, perhaps, I'll always try, but don't go looking or
waiting for it.

> 2) I'm wondering about how well the noise reduction software works. Does
> anyone have any comments on any of the routines?

I played with it once a few years ago. It did well, although I did no
actual measurements. The beat canceller was neat too. I plan to get
these utilities out and play with them some more when time permits.

73,
Tim

21. ti 320c26b info required

From: "Paul Giusti VK3FPG" <pgiusti@iaccess.com.au>
Date: Wed, 26 Nov 1997 11:52:33 +1100
To: "DSP Mailing List" <dsp@tapr.org>
Message-ID: <01bcfa05$94ffbde0$cd4a05cb@dialup.mpx.com.au>
Rendered body type: text/plain

hi all on the list. I will have shortly a jps nir-12 with there dsk kit.
the jps runs on 2 320c26b and while i appreciate they have been
around a while and people have moved on to c3x,c4x.c5 etc i am
hoping there is still someone out there archiving or working on this
chip.

i am only starting out and am keen to start but am wondering if people
have site info (besides tms320bbs) or source code for c26b's for radio
related applications. my main interest is decoders of hf digital transmissions
and would love to get a good spectrum analyser similar to what spectra lab can do
with sb sound card.

any help or information would be greatly appreciated and am looking forward to
progress up the learning curve :)

thanks

Paul Giusti VK3FPG

22. tms320c26b info required

From: "Paul Giusti VK3FPG" <pgiusti@iaccess.com.au>
Date: Wed, 26 Nov 1997 12:59:53 +1100
To: "DSP Mailing List" <dsp@tapr.org>
Message-ID: <01bcfa0e$fd054b40$7e4a05cb@dialup.mpx.com.au>
Rendered body type: text/plain

hi all on the list. I will have shortly a jps nir-12 with there dsk kit.
the jps runs on 2 x 320c26b and while i appreciate they have been
around a while and people have moved on to c3x,c4x.c5 etc i am
hoping there is still someone out there archiving or working on this
chip.

i am only starting out and am keen to start but am wondering if people
have site info (besides tms320bbs) or source code for c26b's for radio
related applications. my main interest is decoders of hf digital
transmissions
and would love to get a good spectrum analyser similar to what spectra lab
can do
with sb sound card.

any help or information would be greatly appreciated and am looking forward
to
progress up the learning curve :)

thanks

Paul Giusti   VK3FPG

23. Re: [DSP:713] tms320c26b info required

From: Rob Frohne <frohro@wwc.edu>
Date: Tue, 25 Nov 1997 22:25:01 -0800 (PST)
To: dsp@tapr.org
Message-ID: <199711260625.WAA06640@shasta.wwc.edu>
Rendered body type: text/plain

Hi Paul,

You might check out software for the C26 DSK. I even have a paper
on my home page using it. (http://www.wwc.edu/~frohro/) and then
look for the voice frequency compander.

Good Luck!

Rob
>
> hi all on the list. I will have shortly a jps nir-12 with there dsk kit.
> the jps runs on 2 x 320c26b and while i appreciate they have been
> around a while and people have moved on to c3x,c4x.c5 etc i am
> hoping there is still someone out there archiving or working on this
> chip.
>
> i am only starting out and am keen to start but am wondering if people
> have site info (besides tms320bbs) or source code for c26b's for radio
> related applications. my main interest is decoders of hf digital
> transmissions
> and would love to get a good spectrum analyser similar to what spectra lab
> can do
> with sb sound card.
>
> any help or information would be greatly appreciated and am looking forward
> to
> progress up the learning curve :)
>
> thanks
>
> Paul Giusti   VK3FPG
>
>

24. Where to buy an EVM56002 DSP kit

From: Alberto di Bene <dibene@usa.net>
Date: Thu, 27 Nov 1997 19:08:56 +0100
To: dsp@tapr.org
Message-ID: <347DB738.C35E065B@usa.net>
Rendered body type: text/plain

A friend of mine will be in the States, in Stanford, CA. the week
starting December 8th.
I would like to make him buy a few Motorola EVM56002 DSP kits for me. He
will stay there
only a few days, so mail delivery is ruled out.
Can somebody please suggest me a place in Silicon Valley where to buy
those kits, with
immediate delivery (or the day after) ?

Thanks,
Alberto di Bene, I2PHD   dibene@usa.net

25. Remove from your subscripttion list

From: Sed Razal <sed@earthling.net>
Date: Fri, 28 Nov 1997 09:14:47 +0800
To: dsp@tapr.org
Message-ID: <3.0.32.19971128091133.006a9c80@central.doh.gov.ph>
Rendered body type: text/plain

Dear fellows,

Please remove me from your subscription list.

Thank you.

Sed Razal

26. COHEVM23 available

From: forrerj@peak.org (Johan Forrer)
Date: Sun, 30 Nov 1997 15:58:21 -0800
To: HFSIG@tapr.org, DSP@tapr.org
Message-ID: <199711302358.PAA06413@peak.org>
Rendered body type: text/plain

Hi,

For those following the C-BPSK experimentation on HF:

I have uploaded COHEVM version 2.3 to the recent_uploads in the DSP file
area. This version has some minor improvements, mostly being "DL friendly".
If you are using the N1OWU BIOS2 loader in Flash, this is good news.

Look for COHEVM23.ZIP in ftp://ftp.tapr.org/tapr/SIG/dsp/recent_uploads as
soon as Tim has moved it (thanks Tim!).

Enjoy!

--Johan

27. "Re: Mars site to add to XMAS list"

From: "Lisa B." <lisabnkrft@worldnet.att.net>
Date: 29 Nov 1997 11:37:17 -0000
Cc: recipient list not shown: ;
Message-ID: <19971129113717.14235.qmail@sdn-ts-001pakpru05.dialsprint.net>
Rendered body type: text/plain

Please forward to friends and bookmark for Christmas shopping...

        http://www.martianconsulate.com

Use my code "18310SST" for online discounts when ordering.

- Lisa

>> On Wednesday, November 26, 1997, lisabnkrft@worldnet.att.net wrote:
>>
>> Joan,
>>
>> ... here's that site doing the Mars "Land Claims":
>>
>>   http://www.martianconsulate.com
>>
>> I bought one for Bill's birthday last month. He was thrilled it

> Thanks! Cool site -- I sent it around the office :) Never too
> many Martians around -- keeps the UFO abduction rate to a minumum!!!
> See you on Tuesday at the bookstore. Tell Mary that she needs

To remove your name from our mailing list, please send a message
with no lines with the subject 'REMOVE' to the address above.

28. Re: [DSP-93:2632] DSP-93 digest 607

From: "David VanHorn" <dvanhorn@cedar.net>
Date: Sun, 30 Nov 1997 15:26:15 -0500
To: <dsp-93@tapr.org>
Message-ID: <199711302032.OAA12726@www.cedar.net>
Rendered body type: text/plain

>Date: 29 Nov 1997 11:37:17 -0000
>From: "Lisa B." <lisabnkrft@worldnet.att.net>
>Cc: recipient list not shown: ;
>Subject: "Re: Mars site to add to XMAS list"
>Message-ID: <19971129113717.14235.qmail@sdn-ts-001pakpru05.dialsprint.net>

I have to get a dozen copies in email, and now from TAPR!....
!(U!%(#(%@$(%^&@

29. Re: [DSP-93:2632] "Re: Mars site to add to XMAS list"

From: "Charles Yaciw" <yaciw@ct.net>
Date: Sun, 30 Nov 1997 15:48:50 -0500
To: <dsp-93@tapr.org>
Message-ID: <01bcfdd1$5cf84d20$974a1ad1@yaciw.ct.net>
Rendered body type: text/plain

remove

30. REMOVE

From: "Charles Yaciw" <yaciw@ct.net>
Date: Sun, 30 Nov 1997 18:22:37 -0500
To: <dsp-93@tapr.org>
Message-ID: <01bcfde6$d862f2c0$614a1ad1@yaciw.ct.net>
Rendered body type: text/plain

[Empty message body]

December 1997

Original source file: dsp.9712
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/dspsig/mail_archive/dsp.9712

1. Unsubscribe

From: Niclas_Lewis@SRT-CA-OT.CCMAIL.compuserve.com
Date: Mon, 1 Dec 1997 09:19:15 -0500
To: "INTERNET:dsp@tapr.org" <dsp@tapr.org>
Message-ID: <199712010919_MC2-29F1-2E4@compuserve.com>
Rendered body type: text/plain

I seem to having problems unsubscribing from this newsgroup due to a
discrepancy between the eMail address I am registered with and the
eMail address my mailer attaches to my outgoing messages. How can I
get around this to unsubscribe ?

Nic Lewis
SR Telecom
Kanata

2. Unsubscribe

From: Niclas_Lewis@SRT-CA-OT.CCMAIL.compuserve.com
Date: Mon, 1 Dec 1997 09:19:15 -0500
To: "INTERNET:dsp@tapr.org" <dsp@tapr.org>
Message-ID: <199712010920_MC2-29F7-D1DB@compuserve.com>
Rendered body type: text/plain

I seem to having problems unsubscribing from this newsgroup due to a
discrepancy between the eMail address I am registered with and the
eMail address my mailer attaches to my outgoing messages. How can I
get around this to unsubscribe ?

Nic Lewis
SR Telecom
Kanata

3. Unsubscribe

From: Niclas_Lewis@SRT-CA-OT.CCMAIL.compuserve.com
Date: Mon, 1 Dec 1997 09:23:54 -0500
To: dsp@tapr.org
Message-ID: <199712010929_MC2-2A38-EACE@compuserve.com>
Rendered body type: text/plain

I seem to having problems unsubscribing from this newsgroup due to a
discrepancy between the eMail address I am registered with and the
eMail address my mailer attaches to my outgoing messages. How can I
get around this to unsubscribe ?

Nic Lewis
SR Telecom
Kanata

4. Re: [DSP:718] Unsubscribe

From: tim@aa5df.sps.mot.com (Tim Baggett)
Date: Mon, 1 Dec 97 09:37:49 CST
To: dsp@tapr.org
Message-ID: <9712011537.AA08445@aa5df.sps.mot.com>
Rendered body type: text/plain

>
> I seem to having problems unsubscribing from this newsgroup due to a
> discrepancy between the eMail address I am registered with and the
> eMail address my mailer attaches to my outgoing messages. How can I
> get around this to unsubscribe ?
>
> ---
> Nic Lewis
> SR Telecom
> Kanata

Hi Nic,

Go to http://www.tapr.org/html/sigs.html (you can also get there by
clicking on the SIGS entry from the main page at www.tapr.org). Go to
the bottom of the page under the heading TAPR Listserve, and click on
"unsubscribe DSP" and enter your email address as you are subscribed to
on the list (not the way your mailer makes it).

If you have any problems, please let me know. tim@dsp.sps.mot.com

73,
Tim

5. RE: [DSP:720] Unsubscribe

From: "Neuman, Rick" <rick.neuman@pcs.bls.com>
Date: Mon, 1 Dec 1997 10:39:12 -0500
To: "'dsp@tapr.org'" <dsp@tapr.org>
Message-ID: <97Dec1.102943est.131715@proxy.pcs.bls.com>
Rendered body type: text/plain

Trry this...

Report any problems to 'tapr-mail@tapr.org'.

regards,
Rick N4RF

> ----------
> From:
> Niclas_Lewis@SRT-CA-OT.CCMAIL.compuserve.com[SMTP:Niclas_Lewis@SRT-CA-
> OT.CCMAIL.compuserve.com]
> Sent: Monday, December 01, 1997 9:35 AM
> To: dsp@tapr.org
> Subject: [DSP:720] Unsubscribe
>
>   I seem to having problems unsubscribing from this newsgroup due
> to a
>   discrepancy between the eMail address I am registered with and
> the
>   eMail address my mailer attaches to my outgoing messages. How can
> I
>   get around this to unsubscribe ?
>
>   ---
>   Nic Lewis
>   SR Telecom
>   Kanata
>

6. Codec CS4215 - source for clock xtal?

From: Bjoern Stokke <bjstokke@online.no>
Date: Tue, 02 Dec 1997 18:12:47 +0100
To: dsp@tapr.org
Message-ID: <1.5.4.32.19971202171247.0069fbe8@online.no>
Rendered body type: text/plain

Source for codec clock xtal ?

My DSP-4 modem card from the ALEFN group - CS 4215 codec and
56k1 cpu - uses a 24.576 mHz xtal as an outboard clock source.

The CS 4215 specs says xtal has to be fundamental mode, par.resonance
with 20 pf. load.

My DSP-4 card works ok with the FSK1200a.asm and BPSK1200.asm programs
with a 3rd overtone series xtal as a clock source, but does not
perform well with the 9k6 G3RUH.asm.

Am almost certain this is caused by the series res. xtal osc. not locking
to the correct freq.

Does anybody know of a source for a clock xtal with the above specs for
the CS 4215 ?

regards,
Bjoern Stokke

e.mail: bjstokke@online.no
pacsats: KO-23, KO-25, AO-16

7. Re: [DSP:723] Codec CS4215 - source for clock xtal?

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 02 Dec 1997 12:20:05 -0800
To: dsp@tapr.org
Message-ID: <199712022020.MAA07797@peak.org>
Rendered body type: text/plain

Bjoern,

See page 4-40 in Crystal Semi databook:
One source for that particular crystal is CAL Crystal (Ph: 714-991-1580).
I have ordered those and used them with the 4215 and they seemed to work OK.
CAL Crystal folks are nice people to work with. Give them a call.

73

--Johan

>Source for codec clock xtal ?
>
>My DSP-4 modem card from the ALEFN group - CS 4215 codec and
>56k1 cpu - uses a 24.576 mHz xtal as an outboard clock source.
>
>The CS 4215 specs says xtal has to be fundamental mode, par.resonance
>with 20 pf. load.
>
>My DSP-4 card works ok with the FSK1200a.asm and BPSK1200.asm programs
>with a 3rd overtone series xtal as a clock source, but does not
>perform well with the 9k6 G3RUH.asm.
>
>Am almost certain this is caused by the series res. xtal osc. not locking
>to the correct freq.
>
>Does anybody know of a source for a clock xtal with the above specs for
>the CS 4215 ?
>
>regards,
>Bjoern Stokke
>
>e.mail: bjstokke@online.no
>pacsats: KO-23, KO-25, AO-16
>
>
>

8. Some questions about EVM card.

From: Vittorio Moretti <orso@comune.modena.it>
Date: Tue, 2 Dec 1997 23:15:35 +0100
To: "'dsp@tapr.org'" <dsp@tapr.org>
Message-ID: <01BCFFB9.84148060@usr2.sassuolo.orion.it>
Rendered body type: text/plain

Hi!
Has anyboby merged togheter the files fsk.asm,g3ruh.asm, ecc...?
I would like use each port of the card with different mode.
Can somebody help me?
73 IK4IRO

9. RE: [DSP:723] Codec CS4215 - source for clock xtal?

From: Charl Cilliers <charlc@grinaker.co.za>
Date: Wed, 3 Dec 1997 08:33:58 +0200
To: "'dsp@tapr.org'" <dsp@tapr.org>
Message-ID: <c=US%a=_%p=GRINAKER%l=GRINMAIL-971203063358Z-717@gel-mail.grinaker.co.za>
Rendered body type: text/plain

Hi,
My name is Charl Cilliers. I am an electronic engineer working in South
Africa. I see that you are talking about the DSP 4 Card and the
BPSK1200.asm program. Are these items available on the Internet?.
Best Regards
Charl Cilliers

>----------
>From: Bjoern Stokke[SMTP:bjstokke@online.no]
>Sent: 02 December 1997 05:14
>To: dsp@tapr.org
>Subject: [DSP:723] Codec CS4215 - source for clock xtal?

>
>Source for codec clock xtal ?
>
>My DSP-4 modem card from the ALEFN group - CS 4215 codec and
>56k1 cpu - uses a 24.576 mHz xtal as an outboard clock source.
>
>The CS 4215 specs says xtal has to be fundamental mode, par.resonance
>with 20 pf. load.
>
>My DSP-4 card works ok with the FSK1200a.asm and BPSK1200.asm programs
>with a 3rd overtone series xtal as a clock source, but does not
>perform well with the 9k6 G3RUH.asm.
>
>Am almost certain this is caused by the series res. xtal osc. not locking
>to the correct freq.
>
>Does anybody know of a source for a clock xtal with the above specs for
>the CS 4215 ?
>
>regards,
>Bjoern Stokke
>
>e.mail: bjstokke@online.no
>pacsats: KO-23, KO-25, AO-16
>
>
>

10. Re: DSP-4

From: Bjoern Stokke <bjstokke@online.no>
Date: Wed, 03 Dec 1997 17:56:20 +0100
To: dsp@tapr.org
Message-ID: <1.5.4.32.19971203165620.00690db4@online.no>
Rendered body type: text/plain

At 00:55 03.12.97 -0600, you wrote:
>Hi,
>My name is Charl Cilliers. I am an electronic engineer working in South
>Africa. I see that you are talking about the DSP 4 Card and the
>BPSK1200.asm program. Are these items available on the Internet?.
>Best Regards
>Charl Cilliers

The DSP4 card is distributed by the Finnish Association for Amateur Radio
Technology RATS.

The contact person is Topi Junkkari, email Topi.Junkkari@hut.fi

You may also contact:

Timo.Sivula@ntc.nokia.com

There may still be kits and/or pcb's left for the DSP-4 project.

Pavel Jalocha, SP9VRC, is the author of the programs mentioned in my txt.
e.mail:JALOCHA@vxcern.cern.ch

regards,
Bjoern Stokke LA5ZL

e.mail: bjstokke@online.no
pacsats: KO-23, KO-25, AO-16

11. Re: [DSP:725] Some questions about EVM card.

From: Douglas Braun <dbraun@ichips.intel.com>
Date: Wed, 03 Dec 1997 21:14:09 +0200
To: dsp@tapr.org
Message-ID: <199712031920.LAA26323@dtthp135>
Rendered body type: text/plain

> Hi!
> Has anyboby merged togheter the files fsk.asm,g3ruh.asm, ecc...?
> I would like use each port of the card with different mode.
> Can somebody help me?
> 73 IK4IRO

I gave this idea some thought a while back. The EVM certainy
has enough memory and CPU power to to a dual-port setup.

There are few problems though:

1: The two modems will be sharing the CODEC, so they will need to
use the same data rate.

2: The HDLC code in leonid.asm will have to be extensively
modified to support multi-porting.

Personally, I concluded that it for what I needed, was easier to
download the correct modem as required instead of writing all the
code for a dual-port setup.

Doug
N1OWU

12. audio related 56k code

From: douglas irving repetto <glmrboy@shoko.calarts.edu>
Date: Wed, 3 Dec 1997 21:55:01 -0400
To: dsp@tapr.org
Message-ID: <l03020902b0abbd2be176@[129.170.40.54]>
Rendered body type: text/plain

hi!

just thought i'd mention that i run a mailing list called music-dsp, and on
the list's website there is a bunch of interesting code for the 56k
chipset. it's not really radio oriented, but it might be of interest
anyway.

here's the site:

http://shoko.calarts.edu/~glmrboy/musicdsp/

look under the source code link. there's a 56k section.

douglas

douglas irving repetto (a.k.a. irving bellemead)

mailto:glmrboy@music.calarts.edu
http://shoko.calarts.edu/~glmrboy
music-dsp mailing list and website:
http://shoko.calarts.edu/~glmrboy/musicdsp

****
you're poor enough for me
poor enough to eat a tree
- s.y.
****

13. Re: [DSP:728] Re: Some questions about EVM card.

From: Thomas Sailer <sailer@ife.ee.ethz.ch>
Date: Thu, 04 Dec 1997 13:01:32 +0100
To: dsp@tapr.org
Message-ID: <34869B9C.7460@ife.ee.ethz.ch>
Rendered body type: text/plain

> I gave this idea some thought a while back. The EVM certainy
> has enough memory and CPU power to to a dual-port setup.
> There are few problems though:

I implemented something like this some time ago on the EZKIT
lite from Analog Devices. It was a quite brute force approach,
operating the CODEC at 48kHz.

The plan was first to independently demodulate 1k2 and 9k6 on
both channels simultaneously, but occasionally the CPU power
didn't suffice, so I ended up doing either 1k2 or 9k6 on
both channels.

I did not implement HDLC on the DSP, HDLC is done in the PC.
I didn't think it was worth the hassle to implement it on the
DSP, because it is not more difficult to decode on the PC
CPU than any checksummed packet transmission format over
the RS232 I know.

> Personally, I concluded that it for what I needed, was easier to

> download the correct modem as required instead of writing all the
> code for a dual-port setup.

I guess the use for such a setup is two independent radio
channels with only one EVM :-)

Tom

14. BPSK demo

From: forrerj@peak.org (Johan Forrer)
Date: Thu, 04 Dec 1997 10:34:58 -0800
To: DSP@tapr.org
Message-ID: <199712041835.KAA13012@peak.org>
Rendered body type: text/plain

Hi all,

For those interested in a demo of how HF BPSK performs under really adverse
conditions, download and unzip the file obtainable from:

ftp.tapr.org/tapr/SIG/dsp/recent_uploads/bpskdemo.zip

This package contains a sort sound clip of the signal. It is an example of
C-BPSK after running through my SHARC-based HF channel simulator. Test
conditions are set for CCIR "POOR" with SNR at -10dB. The accompanying text
file contains the results for various forward error-correcting schemes
currently in use in C-BPSK (Coherent 7.2) and PSK31.

73,

--Johan

PS. Tim, could you please move the file - thanks much.

15. BPSK demo - correction

From: forrerj@peak.org (Johan Forrer)
Date: Thu, 04 Dec 1997 10:41:47 -0800
To: DSP@tapr.org
Message-ID: <199712041842.KAA13942@peak.org>
Rendered body type: text/plain

Hi all,

For those interested in a demo of how HF BPSK performs under really adverse
conditions, download and unzip the file obtainable from:

ftp.tapr.org/tapr/SIG/dsp/recent_uploads/bpskdemo.zip

Sorry, this should be:

ftp.tapr.org/tapr/SIG/dsp/recent_uploads/pskdemo.zip and pskdemo.txt

--Johan

16. DSP56002FC66

From: speag <speag@access.ch>
Date: Sat, 20 Dec 1997 19:51:18 +0100
To: dsp@tapr.org
Message-ID: <349C13A6.7104@access.ch>
Rendered body type: text/plain

Hi there

Does anybody have some of the DSP 56002FC66 from Motorola on stock ?
All the distributers, we called are sold out, and new ones will shipped
early in 98. We are really in stress, because we are producing a test
system, wich we have to deliver in January.

THX for every help
Michael Wyser
speag@access.ch

17. Pactor I for the EVM

From: forrerj@peak.org (Johan Forrer)
Date: Tue, 23 Dec 1997 09:27:13 -0800
To: HFSIG@tapr.org, DSP@tapr.org
Message-ID: <199712231728.JAA03133@peak.org>
Rendered body type: text/plain

Hi folks,

I uploaded my latest efforts for a full Pactor I implementation for the EVM.
It is available at:

ftp://ftp.tapr.org/tapr/SIG/dsp/recent_uploads/evmpac1.zip

This is work-in-progress, but I have been testing it on the air with good
results.

Season's Greetings to all, 73

--Johan

(Tim, could you be so kind to move the files please - thanks much!)

18. Nominations Sought for TAPR Board of Directors

From: "Greg Jones, WD5IVD" <wd5ivd@tapr.org>
Date: Thu, 25 Dec 1997 18:17:14 -0600
To: "TAPR-BB list mailing"<tapr-bb@tapr.org>,
"HF SIG list mailing"<hfsig@tapr.org>,
" Spread Spectrum "<ss@tapr.org>, " TAPR/AMSAT DSP "<dsp@tapr.org>,
"APRS SIG list mailing"<aprssig@tapr.org>,
"NETSIG list mailing"<netsig@tapr.org>,
"BBS SIG list mailing"<bbssig@tapr.org>,
" tacgps "<tacgps@tapr.org>, " MIC-E Beta "<mic-e@tapr.org>
Message-ID: <v03130309b0c8a625a448@[206.138.226.73]>
Rendered body type: text/plain

Nominations Sought for TAPR Board of Directors
(as printed in 1997 PSR #68, p. 34)

Tucson Amateur Packet Radio is incorporated in the State of Arizona as a
non-profit scientific and educational institution. It is recognized by the
IRS as a 501(c)3 tax-exempt organization for these same purposes. TAPR is
governed by a 9-member Board of Directors. Each member of the Board serves
a three year term. Every year three positions are up for election.

Board members are expected to attend two board meetings held in conjunction
with the Dayton Hamvention and the ARRL and TAPR Digital Communications
Conference. They participate in the decision-making process and provide
guidance to the officers. They receive no pay and must defray most of
their own expenses to attend meetings. Board members should be prepared to
be active in the continuing Board deliberations, which are conducted via
the Internet. Active participation in TAPR activities by Board members is
important to the furtherance of the objectives of TAPR. The officers of
TAPR are elected by the members of the Board at the annual Board of
Directors meeting.

The current members of the Board of Directors and their expiration dates of
their terms are:

*	John Ackermann, AG9V	1998	Vice President
*	Jim Neely, WA5LHS	1998	Treasurer
*	Barry McLarnon, VE3JF	1998	
	Steve Bible, N7HPR	1999	
	Gary Hauge, N4CHV	1999	
	Bob Hansen, N2GDE	1999	PSR Editor
	Greg Jones, WD5IVD	2000	President
	John Koster, W9DDD	2000	
	Mel Whitten, K0PFX	2000	

Nominations are now open for seats expiring in March 1998 (marked with an
asterisk).

To place a person in nomination, please remember that he or she must be a
member of TAPR. Confirm that the individual is willing to have their name
placed in nomination. Send that person's name (or your own if you wish to
nominate yourself) along with your call and their call, telephone numbers,
mailing address, and Internet address. The person nominated should submit
a short biographical sketch to be published along with the ballot.

Nominations and biographical sketches should be submitted to the TAPR
office no later than December 31st, 1997.

Ballots will be mailed with the next PSR. TAPR will again use an Internet
ballot, so read your ballot carefully. Results will be announced on March
30th, 1998.

Responsibilities of a board member include:

1) Attendance at both board meetings each year.
2) Regular participation with the continuous session of the board
(currently held over the Internet). Typically this requires a minimum of 3
hours a week, although sometimes much more is required during active board
discussions.
3) Participation with TAPR projects as volunteered. Board members, while
not required, are involved with various project management, ongoing
organization and/or supervision/liaison positions. Active board
participation with various projects make many of the most important
projects and tasks possible. Board members are expected to take an active
part in TAPR in some form.

All nominated members will be placed on the ballot and the highest vote
receivers will be placed in the open board positions. If elected, two
board meetings in 1998 will be held. One will be during Dayton Hamvention
and the other during the ARRL and TAPR Digital Communications Conference.
All directors shall serve for a term of three years.

Tucson Amateur Packet Radio
8987-309 E Tanque Verde Rd #337 * Tucson, Az * 85749-9399
e-mail: tapr@tapr.org   web: <http://www.tapr.org/>
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phone: 940-383-0000   fax: 940-565-2544

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19. New version 3.01 of PSK31 available

From: Eduardo Jacob <edu@kender.es>
Date: Sun, 28 Dec 1997 23:28:51 -0100
To: psk31@bipt106.bi.ehu.es
Message-ID: <3.0.5.32.19971228232851.0080a730@kender.es>
Rendered body type: text/plain

There is a new version of psk31 available at:

ftp://det.bi.ehu.es/pub/ham/psk31/psk31evm301.zip

The PSK31 page is located at

http://aintel.bi.ehu.es/psk31.html

Changes introduced in version 3.01
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1. Bugfix: When switching to (or through) Morse mode with the AFC on, the
   receive and transmit frequencies changed continuously. Now fixed.

2. Previously, aborting a CQ call or a FileSend operation did not take
   place until the send buffer emptied. Now these operations no-longer feed
   through the send buffer and can therefore be aborted more quickly.

3. The MORSE mode is now on the alt-F6 key rather than in the F1 key
   sequence